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THE JOURNAL

OF THE

Florida Medical Association

OWNED AND PUBLISHED BY THE FLORIDA MEDICAL ASSOCIATION

VOLUME X
No. 1

St. Augustine and Jacksonville, Fla., July, 1923

Yearly Subscription, \$1.50
Single Copy, 15c

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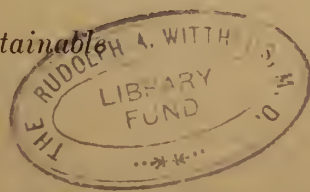
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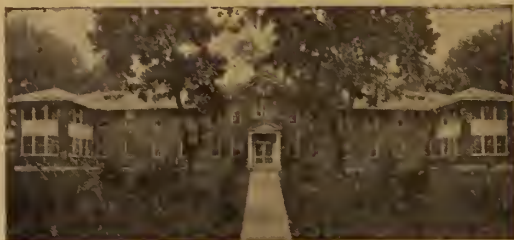


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ORIGINAL ARTICLES

ENDOCERVICITIS, OR INFECTED CERVIX UTERI.*

W. M. ROWLETT, B. S., M. D.,

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Modern medicine has done much for humanity and every individual born in this decade is entitled to live at least ten years longer than one born fifty or sixty years ago. There has been much written in the last few years on longevity. Many of our patients that come to consult us these days come more for examination than treatment, because they have become cognizant of the fact that an additional ten years to their life is promised, providing they give the physician an opportunity to patch up the small rents before they become so large that they are no longer amenable to treatment.

However, when we review the statistics on sterility, cancer and abdominal operations upon the female, we are horror-stricken in this age of specialization at their increase, for which there is no excuse to be given. The reason quite evident is, that the physician in selecting a specialty has followed the law of least resistance, selecting therefore that line which has the least number of objectionable features to it. Should he elect to take up gynecology, he usually connects it up with some other branch, most often surgery, and that with the idea of enlarging his surgical field. How few physicians have the patience to treat locally in his office a case of acute or subacute infection of the cervix! The nose and throat specialist will spend weeks or even months in treating an infection that can do far less damage to the health of the patient than an infected cervix or that of Skene's glands of the urethra, and yet, on account of the unpleasantness and inconvenience of treating the latter, the physician contents himself by prescribing a simple douche and that frequently without an examination, while his neglected patient treads on, a silent sufferer, until the infection has reached such a

proportion that she cannot longer endure it and the doctor is again consulted, whereupon he orders her to the hospital and relieves her of most of her sexual organs, which easily could have been prevented by an earlier proper treatment.

We are today much interested in preventive medicine and if it were not that I am doubtful that woman has been permitted to fully share in this era of scientific medicine, I would not have devoted so much time to preliminary remarks. However, when I see how little is being done to educate her as to the danger of prolonged infection of her sexual organs, I also seriously doubt if we have done our full duty. Take for instance an old lacerated eroded cervix which has developed into a precancerous condition. While we know the danger of this condition if permitted to go on untreated, we hesitate to speak of it to our patient as a precancerous condition, for we know it will carry terror to her heart.

Before going further into this article which deals mainly with the precancerous state, I beg to report the following authorities upon the precancerous state, as there still is in the minds of some physicians the existence of such a condition.

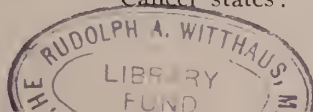
James Ewing, Professor of Pathology, Cornell University, states: "The great majority of cancer develops in organs altered by reactive inflammatory process, previous exudative inflammation often leaves tissue changes predisposing to cancer."

Arnold Sturmdorf, Professor of Gynecology, New York Polyclinic Medical School, states: "Chronic catarrhal endocervicitis precedes cancer in the great majority of cases and the cervical erosion is the most definitely established lesion known to initiate cervical carcinoma."

Bloodgood states: "Every adult, especially male, should know that the appearance on the skin or mucous membrane of the mouth of any kind of an area differing from the normal skin or mucous membrane, such as a wart, an ulcer, an unhealed wound, is an abnormality which, if left alone, may change into cancer."

The American Society for the Control of Cancer states: "One factor during the last ten

* Read before the Fiftieth Annual Meeting of the Florida Medical Association, held at Jacksonville, May 15, 16, 1923.



years that has proven to be of great importance in the origin of cancer is the element of chronic irritation. As the various theories of the parasitic origin of cancer have been disproved, the element of chronic irritation has been found to become an increasingly important factor in the incidence of cancer in one region after another. This fact has made it possible to give prophylactic treatment for the purpose of preventing the occurrence of cancer. This prophylaxis further demands the avoidance of sources of chronic irritation, such as, for instance, the removal of an ill-fitting tooth plate which causes irritation of the gum, or the repair, at as early a date as possible, of the deeper lacerations of the cervix which occur at childbirth. Erosions and lacerations of the cervix of the uterus, the almost inevitable result of childbirth, are the most common factors predisposing to cancer of the cervix.

Palese has demonstrated that thirty-four out of forty-eight cases of cervical carcinoma came from lacerated, eroded cervixes.

Beckman has carefully observed the development of carcinoma in an erosion which he treated for five years.

That carcinoma may result from cervical lesions, that were once benign in character, is also the opinion of a number of others that time will not permit my mentioning.

Now it seems to me that the time has arrived when we should take our patients into confidence and teach them all we know about this disease. In addition to this there are a few important facts that the profession must become better acquainted with. As you know, a few years ago dilatation and curetment was the most frequent gynecological operation performed; the scraping of the uterus to cure a case of chronic endometritis or leukorrhea had assumed the proportion of a fad, the fallacy of which is proven by our present-day knowledge that there is no such an infection as chronic endometritis, that the uterine canal is practically infection-proof, and that leukorrhea is of a cervical and Skene's gland origin instead of uterine.

Dr. Arthur H. Curtis, of Chicago, who has done more than any other man of our age along the line of investigating uterine infections, has recently completed a combined bacteriological and histologic study of one hundred and eighteen uteri removed to remedy various pathological conditions, and states: "The greater part of the endometrium of these uteri was excised in its entire thickness down to the muscle layer, placed

in sterile containers and thoroughly ground and cultured; the remainder was used for microscopic examination. This bacteriological and histologic study revealed that the body of the uterus above the level of the internal os rarely yields evidence of chronic infection."

Others have recorded similar findings and we are now obliged to accept the general view of our pathologists that chronic infections of the body of the uterus are very unusual and the curette is no longer used to cure leukorrhea, which is, as previously stated, either an infection of Skene's glands or a product of the racemose glands, which are found in large numbers penetrating the cervical mucosa which lines the canal, and are very susceptible to infection; they can be aptly termed the tonsil of the uterus. These are mucus-secreting glands which, after becoming inflamed, are stimulated to a higher state of activity. It is estimated by a prominent authority that the infected cervical glands, enmeshed with its great lymphatic system, is a greater hazard to the health of the woman than an infected tonsil is to a child's; thus chronic endocervicitis is not only the most prevalent gynecological disorder, but our patient may easily get from this a secondary infection that will menace the entire genetic as well as the general system, therefore we cannot devote too much care in the examination of our patients who come to us complaining of the slightest abnormalcy about the pelvis, it matters not whether it be pain or a slight leukorrheal discharge.

Cervical lacerations after childbirth provide a most inviting field for infection, as the vagina is a site of numerous bacteria. Bearing this in mind, I always endeavor to repair all lacerated cervixes at the time of delivery, making it also a rule to have my patient report at my office eight weeks after the birth of her baby for examination, at which time a thorough search is made for raw and unhealed surfaces. If found, they are painted with tincture of iodine or a four-to-ten-per-cent silver nitrate or protogel solution, and are instructed to report every week until such lesions are healed. In the cervix, as elsewhere, infection incites the greatest reaction in its lymphatic system, in following the course of which I beg to quote Leopold: "The infection may be traced through the lymphatics from its lacunar origin in the cervical and corporeal mucosa through minute funnel-shaped ostia directly to the myometrium; it branches into an extensive capillary net which, spreading on the

perimysium, penetrates and enmeshes every bundle and fascicle of the entire uterine musculature to its subperitoneal surface, whence it traces into two main collecting canals that course parallel to the uterine and ovarian blood vessels at the base and top of the broad ligaments." Thus the old theory that the infection traveled up the uterine canal to the tubes and ovaries is dispelled.

The greatest proportion of these infections is found to be gonorrheal. However, from ten to twenty per cent of them are streptococci, and from five to ten per cent are tubercular. In the cervix, if the infection remains, we have a chronic inflammation with a round-celled infiltration. Usually we find upon examination a small red os exuding a tenacious mucus. If our patient has given birth, we frequently find a lacerated cervix with eroded hypertrophied lips, dotted with Nabothian cysts, and a granulating surface with a proliferation of cells that bleed very easily. If this proliferation continues, with the breaking down of additional tissue, the constant irritation with its attending inflammation, we have a condition that plays a most important part in the development of cancer; just how and what changes take place that produce the cancer we are not yet able to say, though we do know that cancer begins as a benign growth, and is absolutely local in its beginning. Thus all means should be adopted to correct the condition in its incipency.

The treatment of endocervicitis differs according to the severity of the disease. In acute cases our efforts are bent on preventing the infection from extending into the deep glandular tissues of the cervix, where it becomes chronic and difficult to cure. These *mild* cases, with superficial infection, may be relieved by the application of tincture of iodine or ten-per-cent silver nitrate solution every three or four days. If there is a vaginitis accompanying the cervical infection, this must also receive attention. In my vaginitis cases I have gotten the best results with ten-per-cent ichthyol-glycerine tampons in conjunction with the above cervical treatment. The more severe cases, with deep glandular infection which may have existed for years, causing the ducts to become occluded and distended, resulting in a honeycombed cervix, riddled with many small abscesses, as a result of the occluded ducts, require more radical treatment than local applications. In addition to the general health, which in most of these cases requires building up, there have been several treatments advanced, all of

which have their advantages as well as their disadvantages. Sturmdorf has devised a tracheloplasty operation in which he removes the entire diseased portion of the cervix. This operation has given excellent results, though, on account of its large production of scar tissue and the destruction to the alkali-producing glands, I do not consider it practical in a woman during the child-bearing age. Others have gotten very satisfactory results by the use of the electric cautery, taking a pointed instrument and making numerous punctures into the deep-infected cervix, the heat destroying the infection and the punctures providing drainage for the occluded cysts and blind abscesses. Care must be exercised, however, in using the cautery too freely in the cervical canal, lest we get a great amount of scar tissue and a complete atresia.

Radium has also been used a great deal recently in treating this condition. I have gotten very good results from the use of both the electric cautery and radium. The neatness of the latter treatment, with lesser destruction of tissue and freedom from pain, has caused me to favor it. My technic consists of fifty mgs. of radium in a silver container with walls one millimeter thick, this covered with one millimeter of rubber, and placed in the cervical canal for six to ten hours, depending upon the severity of the case and age of patient. Frequently I take the same amount of radium in the irridium platinum needles and bury them in the diseased cervical tissue for the same length of time as above.

THE IMMEDIATE EFFECT OF RADIUM TREATMENT UPON THE SYMPTOMS OF UTERINE CANCER.*

GERRY R. HOLDEN, M. D., F. A. C. S.,
Jacksonville, Fla.

This paper is a study of the effects produced upon the symptoms of uterine cancer by its treatment with radium radiation. It is based upon an analysis of fifty-seven cases treated by radium between September, 1920, and September, 1922. It considers the relative value which this treatment may have in relieving the more frequent of the various symptoms of this condition, but does not attempt to take up the ultimate physical effects which may be obtained.

The series of fifty-seven cases includes thirty-eight cases of cancer of the cervix; seven cases

* Read before the Fiftieth Annual Meeting of the Florida Medical Association, held at Jacksonville, May 15, 16, 1923.

of cancer recurrent after a previous operation; ten cases of cancer of the fundus, and two cases of fibroid uteri with malignant degeneration.

Five of these cases were so acutely ill that they died within ten days after treatment, before any effect from the treatment could have been received. Although it might be in one way justifiable to drop these five cases from the list, this has not been done, and every case treated during the period mentioned has been included.

All of the cases in the series have been followed up quite successfully and I have been able to obtain apparently accurate data regarding the present condition in each case. The periods from time of treatment to report vary from eight months to two years and eight months.

Gamma radiation from radium was the only treatment employed in the majority of cases. A lesser number had deep Roentgen radiation over the pelvic glands. Preparations of radium salts containing 100 milligrams radium element were used as routine in most cases. The dosage varied from 2,400 to 4,500 milligram hours. The average was about 3,500 milligram hours. Attempts were made in each case to place the radium as well as possible in the center of the growth, either as tubes in the cervical canal or as needles plunged into the carcinomatous mass.

The symptoms studied were hemorrhage, discharge and pain. These three are the most frequent of the various symptoms of uterine cancer. The effects produced upon these symptoms were classified in three groups: first, those cases in which entire relief was obtained; second, those in which the relief was either temporary or partial, and, third, those cases in which there was no relief.

Studied with reference to this classification the results obtained were found to be as follows:

Hemorrhage.—Fifty-six cases gave a history of hemorrhage as a symptom before treatment. Forty-six, or 72 per cent, obtained some measure of relief by treatment. Thirty-five, or 62 per cent, were entirely relieved. Eleven, or 19 per cent, were partially or temporarily relieved. In ten cases, 18 per cent, the treatment had no effect upon the hemorrhage.

Discharge.—Fifty-one of the total number gave a history of discharge before treatment. Forty, or 77 per cent, obtained some measure of relief from treatment. Twenty-eight, or 54 per cent, were entirely relieved, while twelve, or 23 per cent, were partially or temporarily relieved.

Eleven, or 21 per cent, were not improved as far as regards this symptom.

Pain.—Thirty-one cases gave a history of pain before treatment. Seventeen, or 54 per cent, had some measure of relief. This relief was permanent in nine, or 29 per cent; it was partial or temporary in eight, or 25 per cent. Fourteen cases had no relief from pain after the treatment.

Any conclusions based upon a small series of cases must naturally be guarded. Nevertheless, I do believe that these figures represent fairly correctly the relative value which radium therapy possesses in alleviating the various symptoms of uterine cancer.

Hemorrhage apparently is entirely relieved more frequently than any other symptom. As an actual fact, if we studied only those cases alive three months after treatment, we would find the percentage of those cases obtaining complete relief much higher than this table shows. The policy of accepting cases "in extremis" with the hope that some degree of palliation may be obtained must always pull down the percentage of satisfactory results.

Discharge is a symptom less frequently met than is hemorrhage and the percentage of cases in which complete relief can be expected is also less. Pain is least frequently mentioned in the history of all these cases before treatment and the proportion of cases in which it is entirely relieved is the least of all.

The reasons why these various symptoms respond differently to treatment are readily understood. Hemorrhage is, of course, an early and a frequent symptom of uterine cancer and those patients in whom treatment is instituted early obtain, as a rule, the greatest amount of relief. Hemorrhage may often be easily controlled by the radium death of the local cancer tissue and the ultimate formation of dense sclerotic tissue which takes the place of the cancer.

Pain is a much later symptom. When it is markedly in evidence the disease is usually more extensive, therefore less apt to yield to any treatment, and the pain also less apt to be affected. Hemorrhage and discharge often are relieved while pain still goes on. This, of course, means that while the local processes causing hemorrhage and discharge have been killed, there is still cancer, undestroyed by the radiation, growing deeply in the parametrium, keeping up the pain and discomfort.

If we could compare the symptomatic results obtained in treating the different varieties of

uterine cancer, I believe that we would obtain very useful and dependable information, symptomatic reaction varying markedly accordingly to type. The percentage of relief would be high in certain types. The early stages of the rapidly growing, unbroken-down cauliflower type of cervical cancer usually yield readily to treatment, especially if this can be begun before the cachexia and anæmia of the later stages have been established. The cancer recurrent after operation has been for me the most difficult of all types to handle; the number of successful symptomatic results being proportionately very small.

This series of cases is, of course, too limited for such a comparison according to types.

Conclusions.

1. The extent to which the various symptoms of uterine cancer may be relieved by radium treatment varies with the different symptoms.

2. Hemorrhage is the most frequent symptom and is relieved in the greatest number of cases.

3. Profuse discharge is a symptom less frequently met than is hemorrhage and the expectation of relief after treatment is less than in the case of hemorrhage.

4. Pain is the least frequently present of all these symptoms and is the least apt to be relieved.

5. Analytical studies according to the varieties of uterine cancer would probably show that, while the reaction of each variety to treatment might be quite constant, the different types would vary markedly one from the other in their response to radiation.

SOME OCULAR COMPLICATIONS OBSERVED IN DENGUE FEVER.*

SHALER A. RICHARDSON, M. D.,
Jacksonville, Fla.

The recent epidemic of dengue fever, involving practically the whole State of Florida, afforded an opportunity of observing many patients complaining of eye symptoms during and subsequent to the infection and the recognition of some interesting ocular complications that were undoubtedly directly attributable to the disease. The Florida State Board of Health records show that 25,192 cases were reported during the months of July, August, September and October, 1922. Realizing that the number of cases far exceeded those reported, a questionnaire was forwarded to the physicians of the

State by the Board of Health with the result that the total number of cases was estimated at 82,681. In the city of Jacksonville the Health Department conservatively estimates that there were no less than 20,000 cases. The cases that I have observed were in private practice, for practically none of the cases seen locally were hospitalized.

A review of the literature reveals many references to the ocular symptoms of dengue, but very little is said of the actual complications. In nearly all the general descriptions of the disease mention is made of the ocular symptoms occurring during the acute stage, but most authorities pay little attention to the ophthalmological phases and their significance. No less an authority than the Seventh Edition of Manson's *Tropical Diseases* passes the subject by with the following brief statements: "The head and eyeballs ache excessively," "The face—particularly the lower part of the forehead, round the eyes and over the malar bones—may become suffused with a deep purple," "The eyes are usually much injected."

Ashburn and Craig in their article, "Experimental Investigations Regarding the Etiology of Dengue," note the postorbital pain made worse by movements of the eyes, injection of the conjunctiva and lacrimation as common symptoms. No photophobia was observed.

King notes eye pain in the early stages characterized by a peculiar stiffness upon rotation of the balls in any direction, the movement increasing the severity of the pain.

Lane notes pain in the eyes intensified by movement, congestion of the conjunctiva and lacrimation.

Wilson, in reporting the data of eighteen physicians in Hawaii during the epidemic of 1903, groups the following symptoms as characteristic: pain in the eyeballs with congestion of the conjunctiva and photophobia. No eye complications such as keratitis, ocular paralysis, etc., were reported.

Scott, in a survey of the 1922 epidemic in Louisiana, by means of a questionnaire answered by 442 physicians of the State, shows that conjunctival injection occurred in 71 per cent of the cases. No ocular complications are recorded.

Santos-Fernandez, writing on "Ocular Manifestations in Dengue" in 1900, says that he has not heard of any special study of the ocular manifestations of dengue; such manifestations have been observed, but only mentioned incidentally. In common with others, this author notes the pain in the eyes and sometimes photophobia

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as characteristic symptoms of the early stages of the disease; the eyes appear "brilliant and congested" at this stage. During convalescence some diminution of vision has been noted, which is due to paresis of the muscle of accommodation. Hyperesthesia of the retina has been observed manifesting itself as special alteration of vision so that all objects appear as of a red or yellow color. Conjunctivitis and keratitis have been observed. Some authors have reported an iritis, but Santos-Fernandez states that no details are given in these reports which "might justify a diagnosis of true inflammation, instead of a simple congestion of the iris which is so frequent in cases of conjunctivitis and keratitis."

Barkan has reported a case of paralysis abducens and of accommodation following dengue. Commenting further on the ocular phases of dengue, he says: "In dengue we are acquainted with one constant ocular symptom, the intense aching of the eyes, whether a true myalgia or a slight degree of serous tenonitis, or periostitis, is uncertain. It is rather surprising that ocular complications such as the two cases of muscular paralysis I report are not more common. There are many similar points in dengue and influenza. With the existing similarities it is curious that dengue has not been known to be complicated by ocular diseases common in association with influenza—one need only to think of acute hordeolum, keratitis neuroparalytica, herpes corneæ, keratitis punctata superficialis, neuritis optica, muscular paralysis, iritis, etc."

Elliott, in his text on "Tropical Ophthalmology," devotes only a few paragraphs to the eye complications of dengue. He says that acute pain in the eyes and marked photophobia are among the most striking signs of the disease. He reports no eye complications personally observed.

Gibson notes that during the epidemic in Brisbane, Australia, in 1905, he saw three cases of keratitis occurring during prolonged or relapsing attacks of the disease and five cases of keratitis occurring after the attack of dengue had subsided, usually in the first week of convalescence. The postdengue cases were of the neuroparalytic type; the cases observed during the attacks developed a rapid infective ulceration, although the author believes they also were primarily of the neuroparalytic type. The postdengue keratitis the author describes as follows: "In its most typical form a triangular area of the cornea is affected with its base at the periphery and its apex at or beyond the center of the cornea. At

its onset there is acute pain with photophobia and lacrimation. The corneal epithelium is possibly raised as a bleb at the extreme outset, but this I have not seen; it, or a superficial layer of it, appears then to slough and to leave a very shallow ulcer in whose floor appear a number of pin-head opacities apparently situated in the most superficial layers of the interstitial substances of the cornea. In the worst cases the triangular layer involved a fourth of the cornea; the least severe had a very narrow triangle." After the first few hours of hyperesthesia, the affected area of the cornea was anesthetic and this anesthesia persisted for some time—in one case more than two months. The superficial ulcerations cleared up under treatment, but the interstitial opacities persisted for months, and the epithelial surface of the affected area, especially in the center of the cornea, became thickened and glistening white. In discussing the etiology, Gibson goes on to say that the postdengue cases are most likely due to a peripheral neuritis of the portion of the corneal nerve plexus corresponding to the affected area with resulting keratitis neuroparalytica. This accords with the observation that peripheral neuritis in other parts of the body is not infrequently observed during convalescence from dengue. A large percentage of the population of Brisbane were attacked by dengue in this epidemic, yet Gibson saw only eight cases of keratitis complicating the disease and heard of no other similar cases, so concludes that this is an extremely rare complication.

It has been my observation that ocular symptoms in the active stage of dengue are in most instances very prominent, the patient usually complaining of an intense aching of the eyeball and a supraorbital neuralgia. There is a sense of tension within the globe and the slightest movement of the eye produces great discomfort. Lacrimation and photophobia are characteristic and frequently patients are only comfortable in a darkened room. Burning of the eyes with a feeling of sand under the lids is often complained of. Objective examination during this stage often reveals blepharospasm, injection of the ocular and palpebral conjunctiva, this being so intense at times that an acute conjunctivitis is simulated. However, in none of the cases seen were organisms found in the smears that could account for the injection. The ocular tension was consistently normal, as were the pupillary reactions and ophthalmoscopic findings.

During the period of convalescence numbers of our patients complained of great difficulty and in some instances of inability to do close work for any length of time. Many of these patients had refractive errors that were properly corrected and prior to the attack of dengue had no ocular discomfort.

1. Muscular: Dengue patients almost invariably showed a reduction in the power of adduction. In a number of cases the adducting power was reduced to nil. This condition exists to a certain degree in the active stage, but is more marked in the period of convalescence. In passing, it might be well to say that this reduction in the power of adduction is often seen in debilitating diseases, but certainly not to the extent and with the frequency that it is to be observed in dengue. In all the cases seen the longest duration of the lessened power of adduction was two months. A reduction in the power of abduction was noted in a few cases, but in all instances the power of adduction proportionately showed a greater decrease. No disturbances of the power of accommodation were seen, nor were any cases of diplopia encountered.

2. Cornea: Six cases of keratitis were seen, all of which occurred in the first week of convalescence. In each instance it was definitely established that the patient had suffered with true dengue. Four of the cases were of the typical dendritic variety, the corneal lesions assuming a characteristic arborescent conformation. The remaining two cases were of the vesicular type, the lesions never coalescing. Iritis or hypopyon did not complicate any of the cases. Partial anesthesia of the cornea was observed in three of the patients, while the other three cases had unimpaired corneal sensation. In all instances the corneal lesions were unilateral. Great stress was made of the ocular discomfort occurring during the acute stage of the disease by each of the patients. Smears and cultures failed to reveal anything. Three of the patients were relieved within two weeks with no impairment of vision. One case persisted over a period of three months, vesicles forming in successive crops and ultimately the vision was reduced from 20-30 to 20-70 because of a central opacity that resulted. Two cases were of three weeks' duration and terminated with a very slight reduction in vision as a result of nebular opacities.

3. Herpes of the Eyelids: Three cases were seen in which herpes occurred on the lids, two of them occurring in the above-mentioned cases of

dendritic keratitis. Two of the cases showed herpes of the lips and in one, in addition to the lesions of the lip, there was involvement of the alæ of the nose. In all the cases the herpes were unilateral.

For an explanation of the muscular disturbances noted we may assume that the toxin of dengue must have a predilection for the ocular nerves or their nuclei in certain instances. While my observations do not include cases of actual paralysis, others have reported cases.

As to the cause of the corneal and lid herpes, I am of the opinion that they are neuropathic in origin. Assuming that a dendritic keratitis is nothing more than a coalescing of herpetic lesions, we are certainly led to believe that the only difference in the lesions of the cornea and skin is one of location. As to the etiology of these so-called neuropathic lesions in dengue, I believe there is some acute pathological condition of the gasserian ganglion, most likely an acute ganglionitis resulting from the toxin of dengue. This hypothesis is further strengthened when one stops to consider that lacrimation, photophobia, conjunctival injection and the supraorbital neuralgia are all evidences of some irritation of the trigeminal nerve. It is possible that Gibson is correct in his assumption that the corneal complications resulting from dengue are due to a peripheral neuritis, but the syndrome is so closely allied to that seen in herpes zoster ophthalmicus, which we know is due to a disturbance of the gasserian ganglion, that I cannot but feel that it is due to an acute pathological condition of the ganglion.

Bibliography.

- Archbald, R. G.: Seven-Day Fever in the Anglo-Egyptian Sudan. *J. Trop. M.*, 20:133, 1917.
- Barkan, H.: The Ocular Complications of Dengue Fever. *Am. J. Ophth. Ser.*, 3, 2:650, 1919.
- Cazamian: Quelques considerations sur une epidemie de dengue a bord du Kersain. *Arch. d. med. nav.*, 85:241, 1906.
- Davies, L. W., and Johnson, W. B.: Occurrence of Twelve-Day Fever of Dengue Group in Nigeria. *J. Trop. Med.*, 24:189, 1921.
- Elliott, R. H.: *Tropical Ophthalmology*. London, H. Frowde, 1920.
- Gibson, J. L.: Acute Inflammatory Glaucoma Induced in a Susceptible Patient by Dengue. *Australian M. Gaz.*, 17:339, 1898.
- Gibson, J. L.: Keratitis Dengue and Postdengue. *Australian M. Gaz.*, 25:227, 1906.
- Mannaberg, J. and Leichtenstern, O.: Malaria, Influenza and Dengue. In *Nothnagel's Practice of Medicine*, 1905, 720-743.
- Manson-Bahr, Phillip: Dengue in Manson's Tropical Diseases. 7th edition, 211-229, 1921.
- Nagib Ardati: Observation on Dengue. *Med. Rec.* 78: 408, 1910.

Robertson, et al.: The Dengue Epidemic in Brisbane. *J. Trop. M.*, 8:355, 1905.

Santos-Fernandez, J.: Ocular Manifestations in Dengue. In Norris and Oliver—System of Diseases of the Eye, Vol. 4: 720-723, 1900.

Scott, L. C.: Dengue Fever in Louisiana, *J. A. M. A.*, Vol. 80, No. 6, February 10, 1923.

INSULIN IN DIABETES

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One of the most noticeable effects of insulin in the treatment of diabetes is the immediate improvement of the patient, producing a sense of well-being probably based on the confidence in the therapeutic value of the new preparation. One patient experienced a feeling of exhilaration from the moment the needle was introduced, though even in the less optimistic there has been an early appreciation of improvement in the general condition. Rather remarkable has been its effect in restoring the appetite to normal, in removing the insatiable thirst and in relieving the parched tongue. The nocturia is also diminished, giving the patient more refreshing sleep. The strength gradually improves and the weight increases. The effect is probably due to the lowering of blood sugar and improved metabolism.

Not every diabetic needs insulin. In forty per cent of our patients sent in for insulin treatment, sugar-free urine and normal blood sugar were secured through the management of diet alone. These constitute the class of mild diabetics, with a carbohydrate tolerance above 50 grams. Banting thinks that as diabetics come earlier for treatment that 80 per cent can keep their blood sugar within normal limits and keep well nourished without the use of insulin. This impresses one with the absolute necessity of a thorough working knowledge of diet in treating diabetes, whether or not insulin therapy is utilized.

In 30 per cent of our cases designated as moderately severe, with a tolerance between 10 and 50 grams carbohydrate, insulin was used for a short time and gradually omitted. No harmful effect was observed in leaving off insulin. This was of great economic importance in that the patient was placed immediately upon a maintenance diet, without interfering with his usual work, and from 5 to 10 units were given subcutaneously about breakfast time, rendering the urine sugar-free and reducing the hyperglycemia to the normal percentage of blood sugar. The

necessary former method of fasting days and low caloric values until carbohydrate tolerance was determined was thus rendered unnecessary. The ketone bodies were usually eliminated in two days and the blood sugar returned to normal in from two or three days. This method is in fact equivalent to the fasting days, but accomplishing results in much shorter time, permitting the pancreas to rest during the administration of insulin.

In the severe diabetics, with very low carbohydrate tolerance, from 0 to 10 grams, with urinary sugar output of 6 to 10 per cent, and blood sugar readings of from 210 to 400 mgs. per 100 c.c. of blood, and three to four plus diacetic acid, in a few days insulin enables the individual to metabolize his calculated maintenance diet with a normal condition of blood and urine. The dosage was begun with 10 units a day, increasing to 30 and 40 units in two doses, breakfast and supper periods, and continued over an indefinite period. The largest amount used was 40 units a day, always employing the morning and afternoon time for administration.

No opportunity for treating the condition of coma was had. However one patient who manifested symptoms suggestive of an acidosis caused considerable anxiety until it was determined that he had a chronic nephritis and he later died from uremia. One patient had a severe surgical complication, with a gangrenous foot. The insulin had very little effect upon the gangrenous process, but it made him a good surgical risk and with no urinary sugar output, and a normal blood sugar on a maintenance diet of 2,000 calories, his foot was amputated above the ankle under gas anesthesia with an ideal convalescence.

Only one patient protested against the method of administration. She was hypersensitive, though earnest in her efforts. As it happened, she took the insulin long enough to rest the pancreas and enable her to reach her maintenance diet. She is now doing fairly well. Her urine remains sugar-free on 50 grams of carbohydrate, 60 grams protein, and 200 grams fat, though a chronic gastritis and colitis prevent her from feeling well.

We feel that the most important part of diabetic treatment consists in instructing the patient regarding the simple principles of food values, with particular reference to his particular dietetic needs. Every patient is urged to purchase a pair of scales for weighing the food prescribed, and after practice for a while he learns to estimate

with sufficient accuracy his required diet. This is of importance in the proper scientific management of the diet of diabetic patients, and is urged in every case where possible. Many diabetics have come to us under the impression that with insulin the individual could eat a customary mixed meal, and then pull out the hypodermic needle, give the required amount of insulin and all would be well. They soon learned, however, that being a diabetic meant dieting the rest of their lives. Some are easily instructed to calculate food values, how to vary the diet and keep within the prescribed carbohydrate values, and nearly every one soon learns to make tests for urinary sugar, an important thing to teach every patient.

Only one patient showed a hypoglycemic reaction, or insulin shock. The blood sugar had been gradually decreasing each day, but was still high the previous day, and so the patient being in a hurry was given 10 units insulin before the blood sugar determination was made. He went to a barber shop in a short time and while there, about an hour after receiving the medicine, he began feeling queer and nervous, and broke out in a profuse perspiration with extreme weakness. Upon our instruction he carried a piece of stick candy in his pocket and immediately ate it. He became semiconscious for a minute or two, but soon returned to normal. It is thought that perhaps this reaction is due, not so much to the extremely low hypoglycemia, but the rapid reduction of the blood sugar. It is necessary to safeguard the patient against such reactions by instructing him in the very beginning of treatment about using candy or orange juice. Many of the patients who came to the office in the beginning of the treatment carried oranges with them. All patients are soon taught to use the insulin themselves so they can take it at home at the time designated which is not usually convenient to visit the office.

Only three cases in which insulin was used will be reported as being probably the most interesting of the series included in this study:

CASE I.—H. L., age 65. Diabetes for 7 years, had lost two toes from gangrene, and at the time of first visit, had an extensive gangrene of two toes and portion of foot. The urine contained only trace of sugar occasionally, and his wife thought he was doing especially well. He was emaciated, had edema under eyes, weighed 105 pounds, with blood sugar 210 mgs. per 100 c.c.; 1 per cent albumin; hyaline and granular casts,

and blood pressure of 180/100. He was on a very low carbohydrate diet. This is another case of believing that to have Bright's disease is a cure for diabetes, but the real explanation lies in the fact that in nephritics the renal threshold may run very high, one being reported as high as 1.35 per cent (Joslin), without glycosuria. His diet was prescribed C-46, P-36, F-120; 5 units of insulin was given before breakfast and 5 before supper. The insulin was increased gradually to 15 units twice a day. The diet was changed to C-55, P-42 and F-175, using 30 units insulin, and after 4 days the urine was sugar-free, and blood sugar was 120, no diacetic acid or acetone. The patient gained steadily in weight and at the end of three weeks, on account of the unimproved gangrenous foot, it was amputated above the ankle under gas anesthesia. There was absolutely no untoward after-effects and recovery was complete. The patient is now able to get about on crutches. He is continuing to take 30 units of insulin each day.

CASE II.—W. A. B., age 36. In November, 1922, he fell from a train, breaking hip, ribs and with considerable internal injury to left side. He left the hospital the latter part of December. On January 5, 1923, he developed a severe acute pain in left side of abdomen, could not walk straight, had slight temperature, with some symptoms of shock. In a few days his thirst increased and by April he was drinking five gallons of water per day, and eliminating two gallons each night; voiding twenty or more times at night and at least as often during the day. He had a ravenous appetite and ate enough for several people, but continued to lose weight. After finding sugar in the urine, his physician placed him on a very low carbohydrate diet, and his weight began to increase, his thirst lessened. Examination on April 15, 1923, showed blood sugar of 340 mgs. per 100 c.c.; 6 per cent urine sugar; 3 plus diacetic acid and acetone. With a diet of C-23, P-18, F-18, 10 units of insulin were given before dinner each day for four days. Then the diet was changed to C-59, P-58, F-110, and the patient was instructed to give himself $7\frac{1}{2}$ units of insulin 20 minutes before breakfast and the same amount before supper. The blood sugar came down to 200 mgs. with less than 1 per cent sugar in urine. The dose of insulin was increased to 15 units morning and afternoon on the same diet, with the result of clear urine and blood sugar of 100 mgs. per 100 c.c. The patient has a four plus Wassermann reaction, and after beginning intravenous specific treatment, he has im-

proved much more rapidly than before, his weight having increased twenty pounds, with his general condition as fine as ever. Apparently the trauma injured his pancreas and was responsible for the diabetes. He will probably have to continue the use of insulin indefinitely.

CASE III.—M. M. Diabetes for 7 years, discovered about one year following a severe crushing injury in railroad wreck. He had been able to control the sugar in urine by diet until recently when nothing he would do seemed to benefit himself. He had a blood sugar of 320 mgs. per 100 c.c., and 3 per cent urine sugar. He had a suspicious gangrenous spot on side of great toe from a hot-water bottle burn. Diet prescribed at first was C-34, P-70, F-117, using $7\frac{1}{2}$ units of insulin before breakfast and before supper. In two days' time blood sugar was 120 mgs. and urine sugar-free. The diet was increased to C-60, P-70, F-128, increasing the insulin to 10 units in the morning and $7\frac{1}{2}$ in the afternoon. After two weeks he was permitted to return home in excellent condition, with splendid color, feeling better than he had felt for several years, and return to his work as an engineer. His diet had been raised to C-90, P-80, F-200, 2,480 calories, and he was then using only 10 units of insulin before breakfast. After two weeks longer he was permitted to gradually reduce the dose of insulin, and finally left it off altogether. Occasionally when he feels bad, and if he should find a trace of sugar in the urine, he takes 10 units of insulin, as he feels the need of it.

THE CONTROL OF DIPHTHERIA.*

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The only excuse offered for writing on this subject as soon after the paper at Pensacola two years ago is that at that time I closed with the statement that the State Board of Health would undoubtedly offer the Schick test and toxin-antitoxin immunization within a short time.

These were added to the free biologics during the latter part of 1921, and notice was given to that effect.

Lest there might be some present who are not familiar with these biologics, let me add a word,

* This paper was intended for presentation before the Fiftieth Annual Meeting of the Florida Medical Association, held at Jacksonville, May 15, 16, 1923, but owing to an overcrowded program the essayist did not have an opportunity.

even at the risk of repetition, to the great majority of those in attendance.

The Schick test consists of the injection of .2 cc. of salt solution containing 1/50 M. L. D. of diphtheria toxin between the layers of the skin on the right forearm, usually on the flexor surface just below the bend of the elbow. If the patient is susceptible, an area of redness $\frac{1}{2}$ to 1 inch in diameter develops in from 24 to 48 hours; this gradually fades, leaving a scaling surface with slight pigmentation that lasts for a short time.

If the patient is immune no redness follows, while if there is a serum sensitiveness it is shown by an area of redness at the site of the injection and at the site of the control done on the other arm with the same amount of the same material, but which has been heated to 75 degrees C. for 10 minutes.

The toxin-antitoxin treatment consists of three injections, a week apart, of 1 c.c. of a mixture containing .1 L. plus dose of toxin which has been nearly neutralized with antitoxin.

Over 90 per cent of the susceptibles are rendered immune by this measure and those not developing an immunity from the first series may be immunized by further treatment. On account of the great percentage of susceptibles below six Park recommends that all below that age be given the T.-A. without a preliminary Schick.

The first city in the State to make use of these agents was St. Petersburg, where Doctor Wood tested 1,710 school children, finding approximately 50 per cent of them susceptible.

All susceptibles were offered the T.-A., but of 849 only 523 accepted, and of these 499 took the second injection and 486 the third.

Jacksonville was the second city to use the test. It was offered to the pupils of the city schools, but only given to those who brought a signed permission certificate or request from their parents or guardians, not only for the test but if found positive to give the toxin-antitoxin immunization. Of 2,610 who were tested, 1,076 were found to be susceptible and of these 960 were immunized by the City Health Department, the balance or nearly all the others went to their family physicians who gave the toxin-antitoxin. This work was done in the spring of 1922, and last autumn we had at least one very interesting and definite illustration of the value of the procedure. During the taking of cultures at one school a positive culture was found from the throat or nose of a son of one of the members of

this association. Knowing that he had given a positive Schick and that he had received the T.-A. a few months previously, we determined to find if this was a virulent or non-virulent organism. The virulence test on each of two guinea pigs proved that we were dealing with virulent organisms, and this was repeated later with the same result. Here was a boy carrying organisms in his throat of sufficient virulence to kill guinea pigs in forty-eight hours; though being immune he did not have any symptoms, however, it is surely fair to assume that but for the immunization received from the T.-A. in the spring of 1922, he would have had a case of diphtheria instead of being an immune carrier of virulent organisms for at least twenty-two days, and we do not know how long he had been carrying these organisms before the first culture was taken.

At many other places in the State more or less Schick and T.-A. work has been done, but these agents have not been used to the extent they should be and it is a duty each of us owes to our communities to teach the parents and the school authorities that it is now possible to render practically every child immune to diphtheria.

In the previous sentence the word child is used simply because we are speaking of a disease that is primarily a disease of childhood, but it is also possible to immunize adults as well. It is the firm belief of the writer that a hospital that allows one of its nurses to graduate without knowing that she is immune to diphtheria has failed to realize its duty to its graduates. The same, of course, holds true of medical schools.

The State Board of Health has been ready at all times to demonstrate the test to the county societies and has responded each time it was called upon, also to assist the different communities in the work of finding the susceptibles and immunizing them. Will you help us to cut the incidence in this State practically to the vanishing point and in this way render a service to your State, community and patients that will repay every effort you may make?

I wish to quote re the dosage of antitoxin in the treatment of diphtheria from Dr. William H. Park, of the Research Laboratories of the New York City Health Department, whose practical experience, not only in the production but also in the administration of antitoxin, makes his statements accepted as the last word to date on this subject:

"Although more than twenty-five years have elapsed since the introduction of diphtheria anti-

toxin in the treatment of diphtheria, good observers, although nearer together than at first, still differ in the amount which they believe should be injected and in the methods of its administration. Before giving our own conclusion on the proper dosage, it is well to consider several points upon which this dosage is founded.

"The amount of toxin in any case of diphtheria is comparatively small. One hundred units of antitoxin which would neutralize fifty times the amount of toxin sufficient to kill a six-year-old child, would surely make harmless all the toxin present in the most malignant cases if it could gain access to it in time. If we give antitoxin, therefore, as many suppose, simply in sufficient amount to neutralize the poison in the body of an infected person, comparatively small amounts would be injected, but we have to give very much more than this because of the time it requires for much of the antitoxin to reach the toxin. This can be brought into direct contact with the toxin only by being absorbed into the blood and then passing through the capillary walls to the tissue fluids and cells. The greater the quantity of antitoxin that is in the blood the greater will be the speed that an appreciable amount will pass to the tissues. The combined endeavor of the clinical observer and the laboratory worker is to find the suitable dose which will give a sufficient concentration in the blood to neutralize, as quickly as necessary, the toxin in the tissues. In the laboratory we can test the amount of antitoxin which is absorbed into the blood from any given dose and the amount which passes out through the tissues, while the clinical observer can note the changes which take place as he watches the case after antitoxin treatment.

"It is naturally a matter of great importance as to how the antitoxin is administered. When it is given subcutaneously, the swelling caused by its injection rapidly disappears by the absorption of the water, but the globulins and antitoxin remain behind in the tissues because of the slow absorption of the proteins. By testing many patients, it has been found that it takes twenty-four hours for the major part of the antitoxin to be absorbed by the blood from the subcutaneous tissues and some twelve hours from the muscles. For its total absorption it requires two or three days. Through the use of the Schick test, it has been determined that an injection of antitoxin given intravenously passes out of the tissue fluid about ten times as rapidly as when the dose is given subcutaneously, and four times as when

given intramuscularly. A unit gives most effect when given intravenously and least when given subcutaneously. If it were not for the fact that it is more difficult to give it intravenously and also that sharper serum reactions occur, the intravenous method would be the only one used. Another matter which is of importance is the size of the individual treated. It is self-evident that if a child weighing twenty pounds is injected with 10,000 units, it would, on the average, have in its blood five times as much antitoxin per cubic centimeter as a person receiving the same amount who weighs one hundred pounds. The influence of weight on the dose is, however, largely neutralized by the fact that diphtheria in the child is generally more dangerous than in the adult. Every minute of delay in the neutralization of the toxin in a severe case is of importance, but in a mild case, where dangerous poisoning is still remote, slight delay makes little difference. Infants and children are especially liable to laryngeal diphtheria, so that every case in a child presents a certain gravity which the adult does not present.

"The last point to be considered is whether a single or multiple dose should be given. It must be realized that antitoxin has no effect whatever on injury which has already taken place. It is as useless then as water on the ashes of a burned-out building. If the toxin is permanently united with the cell substance, antitoxin is no longer of any service. It is the early and sufficient dose which is important. When we give a divided dose, we simply get the effect of the first portion during the interval before the giving of the second dose. If the second dose had been given with the first, we would have had its effect added and so an insufficient dose made adequate. When the first dose has been of sufficient size, the second and third injections, though harmless, are absolutely useless. The holding back of a part of the first dose so as to give it later, simply delays its action to a time when it cannot have much, if any, effect.

"For the last three years, we have used in the hospitals for contagious diseases only a single dose of antitoxin, which, in mild cases, has been given subcutaneously; in moderate cases, subcutaneously or intramuscularly; and in severe cases, intravenously or intravenously and intramuscularly. After twenty years of experience in treatment and animal experimentation and consultation with physicians in New York and elsewhere, the following dosage, which is that

adopted by the Health Department of the city and State of New York, is advised:

DOSAGE OF UNITS OF ANTITOXIN IN DIPHTHERIA.

Single Dose Only.

Infant, 10 to 30 pounds (under 2 years).

<i>Mild.</i>	<i>Moderate.</i>	<i>Severe.</i>	<i>Malignant.</i>
2,000	3,000	5,000	
3,000	5,000	10,000	10,000

Child, 30 to 90 pounds (under 15 years).

3,000	4,000	10,000	10,000
4,000	10,000	15,000	20,000

Adults, 90 pounds and over.

3,000	5,000	10,000	15,000
5,000	10,000	20,000	40,000

METHOD OF ADMINISTRATION.

Subcutaneous or intramuscular	Intramuscular or subcutaneous	Intramuscular or ½ intravenous and ½ intramuscular or subcutaneous	½ intravenous and ½ intramuscular or subcutaneous

"The above amounts are sufficiently large, and I think no appreciable advantage would be obtained by increasing them."

No apology is offered for the long quotation from Park & Williams' Pathogenic Microorganisms, for here, according to my judgment, is the best presentation of the subject published. The conclusions are logically drawn and the reasons for each are clearly stated. As this is a matter about which there has been considerable variation of opinion, it was felt that this plain statement might be of advantage to all.

There is one very important factor in the control of this disease that should not be lost sight of and that is the taking of cultures from the nose and throat of all contacts.

This is becoming more and more important as we increase our immune population, for many an outbreak of diphtheria has been caused by organisms carried by those who were immune.

No case should be released from quarantine until at least two successive negative cultures from both nose and throat, taken on different days, have been obtained.

The Bureau of Vital Statistics of the State Board of Health received reports of 865 cases of diphtheria in 1921, and deaths from the disease were 69; of these 41 were less than five years of age; 25 others were less than 10 and the other 3 were 10 or over. In 1922, 901 cases were reported and 95 deaths; 67 under 5 years of age; 14 others below 10 and 14 who had passed their 10th birthday.

Let us all join in saving this needless loss for it is wholly preventable.

SUPERSTITION AND MEDICINE.*

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The two things about which mankind is most credulous and most ready to accept unsupported theories as facts are those which concern his soul and those which have to do with his bodily welfare. There seems to be no religious belief whose tenets are so bizarre but which has its adherents following after some self-appointed prophet. Likewise in the domain of medicine any charlatan can acquire a following of misguided persons who eagerly accept his weird theories and unproven statements. Religion and medicine have always been more or less confused, not always to the advantage of the latter. The earliest historical records that we have indicate the divine or demoniac concept of the origin of disease. Healing was in the hands of priests or priest-physicians who claimed to have miraculous powers with the gods or goddesses whom they served and by their influence were able to cast out disease. Hippocrates was the first to free his mind and the minds of his contemporaries from the divine or demoniac origin of disease and to lay the foundation for modern scientific medicine.

It is a strange commentary on our civilization that today we have a large band of intelligent people who call themselves scientists, Christian Scientists, and yet cast aside all teachings of medical science from Hippocrates down. Like the barbarians of old they entrust both their souls' welfare and their bodily health to the care of their priests or readers. If the tenets of this band were universally followed, medical science would revert to the plane it held in the days of the Babylonians and Assyrians.

The evolution of medicine has been a slow process, lagging somewhat behind other of the arts and sciences. Following the impetus given it by the Greeks, the Egyptians and the Arabians who accepted their teachings made notable progress, but following the decay of these early civilizations the science was pretty much at a

standstill until modern times. It is not our intent to inquire into all the reasons for this lack of progress. One thing, however, was the superstitious belief that it was not for the mortal mind to know the secrets of nature. Religious bigotry made it a crime to dissect the human cadaver. During the middle ages a dissection was a rare event and attracted students from far and near on such infrequent occasions as it was permitted. Scientists were afraid to reveal discoveries which they had made because of the bigotry which feared that the religious ideas of the time would be upset. To me it seems the grossest superstition that science has ever or can ever reveal truths which mankind ought not to know. Nevertheless, intolerance persists even in our time, as witness the recent attempt of a famous resident of Miami to revive the controversy over the teachings of Darwin and Huxley. I would not be understood as saying that true religion is unfriendly to medical science. The establishment of hospitals and the organized care of the sick and infirm was the direct outcome of the teachings of Christ and his disciples. The churches have established great hospitals open to physicians of any creed but closed to the charlatan, and medical missionaries have carried the healing art to the outposts of civilization. It is not the Christian religion which has so hampered medical progress in the past but the bigotry, intolerance and superstition which surrounded it.

Men have about their clothes curious survivals of the past, for instance the cut-away waistcoat to show the ruffled shirt, the split coat tails, the evening coat relics of the time when men rode horseback, the buttons at the back to fasten the sword belt, etc. It is not strange that medical science, in emerging from the mass of ignorance and prejudice which surrounded it should have some superstitions still clinging to it, especially in the lay mind and, unlike our useless buttons, they are not entirely harmless. There are too many of them to enumerate in this paper, and we will take as examples only two groups.

The first group to be considered consists of the relics of the past which cluster about the disease known as malaria. Malaria, the scourge of the tropics, cause of the failure of great enterprises and efforts at colonization, supposed by the ancients to be due to poisonous vapors or miasma arising from swampy grounds. From this belief comes the idea that low ground is unhealthy. Of course we now understand that it is

* This paper was intended for presentation before the Fiftieth Annual Meeting of the Florida Medical Association, held at Jacksonville, May 15, 16, 1923, but owing to an overcrowded program the essayist did not have an opportunity.

the mosquitoes that breed in the swamps which cause the trouble, but the old superstition still clings. We who live in the lowest State in the Union should be most zealous in combating this outworn belief. From the same origin comes the prevalent idea that night air is unhealthy. In some countries the natives carry umbrellas at night to keep off the poisonous dew. Mosquitoes come out at night seeking whom they may devour, and again it is the insects and not the night air which is poisonous.

Another thing we often hear our patients speak of is that they are afraid they may have "a touch of malaria," just as in the war the soldiers spoke of a touch of the gas. Malaria does not come in touches—at least in the acute form it strikes hard. Another belief which concerns the profession is that chills and fever spell malaria. Before the discovery of the plasmodium it was perhaps justifiable to treat chills as malaria, applying the therapeutic test, but nowadays with the laboratory at hand, no cases of sepsis should be saturated with quinine.

Quinine cured malaria many years before its specific action was understood, and it was then reasonable to try such a valuable remedy in other conditions. The victim of malaria has chills and fever and his bones ache, and in common colds the same thing occurs in lesser degree. Quinine will cure the aches and discomforts of malaria, therefore the same drug is given in smaller dose for colds and bronchitis. I do not suppose there is a rhinitis tablet on the shelves of our drug stores today but what has its microscopical dose of quinine, a votive offering to the gods of chills and fever.

Another very widespread idea is that quinine should be preceded by calomel. I once lived in a very malarial country and I tried giving quinine without waiting for calomel. It seemed to work just as well and since then I have never used it in malaria. Macht¹ has shown that the administration of a saline definitely inhibited the absorption of drugs such as quinine, and while calomel could not be shown to hinder absorption, it did not hasten it. Since calomel is usually followed by a saline, the administration of these drugs not only wastes time but definitely retards the cure. How did this idea arise that calomel was so necessary in malaria I do not feel sure, possibly because jaundice is sometimes found in the severe cases

and calomel is supposed to be good for that. More likely it is merely a survival of the therapeutics of a hundred years ago, bleeding and purgation, which leads us to the consideration of the second group of misconceptions.

Hippocrates, sometimes called the greatest physician of all time, originated the theory of four humors, the blood representing heat, the black bile moisture, yellow bile dryness, and mucous cold. Disease was supposed to be due to disorders of these four elements. For 2,000 years this belief held sway and even today some survivals of it may be observed.

The blood represents the heat, and as late as a hundred years ago venesection was the supreme remedy in all fevers. In pneumonia the blood boiled furiously and clogged up the capillaries of the lungs and produced inflammation. Fortunately the days of blood-letting are past, but there are still remnants of the belief in the blood as the source of disease. Some of us can remember the days when children were subjected to a spring dose of sulphur and molasses to clear out the winter's accumulation of poison from the blood. Acne and boils are still popularly supposed to be due to blood disorders, and many patients still ask for medicine to purify their blood. The patent medicine manufacturers have made great capital of this belief and sarsaparilla had made fortunes for them. The eruption of measles is supposed to be due to the coming to the surface of the poison, and great satisfaction is expressed at a florid eruption. The child is apt to be wrapped in blankets to "bring out the rash" and there is great fear of its "striking in." Some patients want to take salts to "thin" their blood, a curious conception that the abstraction of water can thin anything.

Of all the Hippocratic traditions, decidedly the most popular one today is the belief in the bile and the liver as the source of disorders. The lay mind spells "biliousness" in capital letters; in medical literature the word is always enclosed in quotation marks. When a person overindulges in food and drink and the intestinal contents stagnate and putrefy, a characteristic group of symptoms follows which is termed "biliousness." Then the thing to do is to take calomel, to "work on the liver," and when the green stools of mercuric oxide and sulphide appear it is positive proof of a "torpid liver." The liver is a wonderful chemical laboratory and storehouse, which

(1) Macht, John. Hospital Bulletin, September, 1922, No. 379.

does its work diligently and well, unless poisoned by alcohol or syphilis or invaded by cancer. The production of bile is not in the least increased by the administration of calomel, a fact comparatively easy of proof since the days of gall-bladder drainage. Calomel has its uses, for it is easy of administration and can be used in the presence of vomiting, but the indictments against it are many. It is slow in action, requiring 8 to 10 hours for effect; and it is a subtle poison and may precipitate uræmia in nephritics.

It is an unreliable cathartic and has to be followed by a saline to complete its action. It may produce a mercurial colitis and it is neither an intestinal antiseptic nor a chologogue. Why use a nauseating and poisoning drug when we have an abundance of satisfactory non-toxic cathartics from which to choose? Dr. Oliver Wendell Holmes said of medicine in his day that if all the physic were thrown into the sea the world would be better off, but it would be hard on the fishes, and I think the same way he said of calomel today.

Of the fourth humor, mucus, I can think of only some quite harmless survivals in our language. Mucus or phlegm represented the cold, and when one has an acute rhinitis with an outpouring of mucus from the nostrils we still speak of it as a "cold." So also when the baby has an intestinal derangement with mucus in the stools, the mothers, at least in this section, still speak of it as a "cold in the bowels." A cold unresponsive person is still spoken of as phlegmatic—interesting but harmless survivals.

We hold in greatest honor and reverence the memory of the great physicians and scientists of the past. There were giants in those days, and their names live because, working with poor tools and without the accumulated knowledge of our time, they stood out against the established belief and superstitions of their day, and blazed out new paths. A hundred years from now many of our cherished beliefs may be classed as misconceptions. In meeting our patients it is always easier to acquiesce to popular superstitions than to stand out against them, but it seems to me that the honest physician should be true to his convictions. The popular mind is overcredulous in veering to every new mind of doctrine, untried and unproven, and it is our duty not only to help cast aside the myths of the past but to scrutinize and weigh carefully all new appeals to our credulity.

OBSTETRICAL ANESTHESIA, WHY AND HOW.*

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In recent years surgery has seen many advances, notably of which is the work done by Crile, based upon his theory of anoci-association. Much has been done for the comfort and safety of the patients undergoing surgical operations, and even previous to Crile's work it was considered very important that operations should be done without pain for the ultimate good of the patient. Very little thought, however, has been given to the possibility that the pain associated with childbirth could in any way be damaging to the patient, or deserving of serious consideration. In no class of patients is the theory of Crile more applicable. First, because the patient may be depleted, or the central nervous system depressed on account of the nine months' puerperium and, second, because two patients are effected. The theory that painful impulses passing to the central nervous system cause damaging and even destructive influences there, has suggested to me the need for the application of a more perfect anesthesia and the more general use of it in childbirth, especially in certain types of cases, as, for instance, highly sensitized individuals, neurotics and old primipara. We all know the frequent course of this type of labor case if left to her own resources without anesthetic. If she delivers alive she is shocked, exhausted and most likely lacerated. We can only surmise what the effect has been on the secretory nervous system and what the result is to the hormone balance. These may be too far-reaching for our observation, but we will be forced to take note of the fact that we have a poor milk secretion and a crying, unhappy baby. The baby gets a bad start on a poor diet and may be handicapped through life by some retarded development. The mother may suffer any degree of damage to the nervous system, even to the point of obstetrical insanity, the degree of damage depending upon the amount of pain and shock inflicted and the condition of health of the organ of consciousness (the brain). Why should we practice the inhumane policy of allowing these patients to suffer thus and undermine her milk secretion and her physical ability

* This paper was intended for presentation before the Fiftieth Annual Meeting of the Florida Medical Association, held at Jacksonville, May 15, 16, 1923, but owing to an overcrowded program the essayist did not have an opportunity.

to supply vitality and health to the child? If the mortality after surgical operations is reduced by proper anesthesia, why cannot the mortality and the morbidity in obstetrics be reduced by the application of proper anesthesia to prevent shock and damage to nervous tissue. The greater part of the morbidity in obstetrics in the hands of men who know how to do a technical delivery results from the patient interfering with the technique while writhing in pain.

Freund states that the factor which causes lacerations is the arrest of dilatation by the severe pain or returning consciousness of pain and consequent contraction of the perineal muscles at the height of uterine contraction, evidently an effort of the patient to hold back or inhibit her pains. Take away the pain and you relax the perineum. Deal with the consciousness of the patient in such a manner that it will be exalted above the realm of fear and pain. This is effectually done by the association of morphine-scopolamine, nerve block and gas-oxygen amnesia or anesthesia. Before taking up the consideration of the anesthetic drugs we use, let us rid our minds of any prejudice we may have toward morphine-scopolamine on account of their association with twilight sleep.

I call attention to a recent decision of the National Anesthesia Research Society at its meeting in Chicago upon the use of morphine-scopolamine in obstetrics. It was concluded by that body that these drugs, when properly used, always give gratifying results. Deviating a little, but as an interesting possibility, we may consider the addition in our future work of the radiophone to our combination of nerve protectives.

Dr. Howard Frick, of Philadelphia, has recently performed an appendectomy and a gallstone operation upon a young woman under spinal anesthesia, while she listened through the radiophone to Pederewski, McCormick and others. These master pieces of music delighted and exalted her central nervous system, and completely disassociated it from the trauma of operation. Think how delightful it would be for a mother to bear her child painlessly to the strains of some soothing lullaby. Our plan is: with beginning of suffering give morphine grains 1/6 and scopolamine grains 1/300 to 1/250, the smaller dose to young patients. The room is darkened and noises shut out. Repeat the scopolamine every half to two hours, according to the individual requirements, until evidence of slight mental confusion are present. If pain is

pronounced, morphine is repeated also, all repetitions depending upon the suffering and the individual characteristics of the patient. The injection for blocking the sacral nerves requires 30 to 40 minutes for its anesthetic effect, which should be gaged to start when the presenting part begins to move down on the perineal floor. The greater part of the pain is due to the stretching and tearing of Colles fascia. The success of this nerve block depends upon the diagnosis of the proper moment for its administration. Determining the time for this injection involves complete knowledge of your case, as to the expulsive forces, as well as the forces that are standing in the way. This moment can be diagnosed close enough always to give good results, provided we spend enough time and pains in the effort. Frequent examinations must be made, and they must be rectal, for the safety of the patient. Practice will make rectal examinations quite sufficient for this diagnosis. Of course they should be made with gloves or finger cot. The caudal injection in reality is a nerve block. Its practicability in obstetrics is due to the fact that the involuntary muscles of the uterus is not interfered with by the sacral block, while the perineal muscles are relaxed and anesthetised, as well as the fascia of the perineum. The enervation of the uterus is through the hypogastric plexus of the sympathetic.

According to Lannander, no sympathetic nerve fibre transmits pain. If he is right, there should be no painful impulses due to the contraction of the uterine muscles. The contractions of the uterus are governed by the autonomic nerves, which have most to do with the tonus of the uterus and regulate its contractions. The location of these ganglia and the fact that as the internal os becomes stretched open and the cervical canal gradually obliterated by the pressure downward of the growing fetus, it would seem very reasonable to suppose that the onset of labor is under the control of these cervical ganglia of the autonomic. We know that the uterus is in rhythmic contraction weeks before actual labor begins, continuing involuntarily and without pain, as does the contractions of the heart and gastrointestinal tract, under the control of the same autonomic nervous system. Like the heart, the uterus has an inhibitory force at work, which depresses the ganglia around the cervix, and holds the contractions in normal bounds till the fetus is fully developed. This inhibition in the uterus is attributed to some placental hormone.

Assuming that the inhibitory hormone of the placenta arrests the menstrual bleeding when pregnancy takes place, it would appear that hemorrhage in early pregnancy might be due to a deficiency of this placental hormone. Working upon this theory, I have used placental extract with success in a case of persistent bleeding at beginning of pregnancy, this patient having miscarried at her former pregnancy from the effects of persistent bleeding. There has been some experimental work done which seems to substantiate this. Thus it seems, without being proven, that when the placenta becomes senile or ceases functioning on account of premature separation or degeneration, that the uterine contractions go on without inhibition, or progressively less inhibition with each succeeding contraction. Actual suffering begins when the advancing fetus presses against or stretches nerve filaments from the sacral plexus distributed in the external os, vagina and perineum. This furnishes the indication for the sacral nerve block, the technique of which is as follows:

Place the patient on the side and close to the side of the bed or table, with knees drawn up high. Locate the sacral hiatus by placing the finger on the tip of the coccyx and slip the finger up the spine until it slips into the triangular depression between the cornua. Using the cornua as landmarks, enter the needle just below center of line connecting the cornua. Anesthetise the spot with ethyl chlorid sprays and pass the needle into the hiatus with a slight upward inclination. When the needle is felt to pass the dense membrane closing in the sacral canal, the butt of the needle is lowered, thus directing its point up the sacral canal. The stilet must be left in the needle during this part of the procedure and while it is passed along the sacral canal to a distance of 8 m.m. The stilet is then removed and 20 c.c. of the solution slowly injected. Needle is withdrawn slowly as the injection is given. We use the following solution: Sodium bicarbonate 0.15, sodium chloride 0.10, novocain 0.60. This is put up in a powder. When moment arrives for block, add powder to 30 c.c. of boiled distilled water, which gives 2 per cent solution of novocain in normal salt solution. After adding the powder, we bring the distilled water to a boil—the second time. Allowing it to cool, we then draw it into a sterile syringe, remove the stilet from the needle, and inject the solution.

Spinal anesthesia has been put on a practical basis in the Leipsic clinic. Over 3,000 cases be-

ing reported without a fatality. Sacral anesthesia is even less dangerous, because the needle does not enter the dural sac. LaBat has introduced sacral anesthesia at the Mayo clinic for the performance of gynecological operations. Stockwell diminished the pain of childbirth by the caudal injection of novocain, but his dosage and the use of a single anesthetic only gave partial success. Lawen and Gros later added sodium bicarbonate to the solution, which prolonged somewhat its anesthetic effect.

By a combination of our three anesthetics, with possibly a repetition of the caudal injection, we are enabled to prolong the anesthesia to embrace any length of labor. What we really need in this work is a drug for nerve blocking which will produce more profound and prolonged anesthesia of the nerves and with at least no more toxic properties than is possessed by novocain. We have just begun some experimenting with butyn, a newer preparation and one seeming to have more anesthetic power. The third of the associated anesthetics is nitrous oxide and oxygen. This is used whenever the painful impulses are breaking through our anesthetic blockade. By cooperation with the patient, she will give you the indication for the gas and the signal when she needs it. We only give the gas during the contractions of the uterus as a general rule. Gas-oxygen gives very satisfactory results when used alone, if used freely or used continuously during the second stage of labor. But the expense of the gas and the inconvenience of transporting the apparatus to patients outside of a hospital, has stimulated me to this work in the hope of perfecting a method of nerve block which will be both effectual and simple of technique. In some cases where the above anesthesia is not working perfectly, the perineum being very rigid and the suffering of the patient very evident, with the conditions pointing strongly to a bad laceration, I have found it preferable to infiltrate the perineum, anesthetising Colles fascia and the perineal nerves. This will often obviate the necessity of doing an episiotomy, which is an operation with many bad results.

To anesthetise the perineum, we enter the needle at two anterior and two posterior points. Primipera require only the anterior injections. We enter the needle 2 to 4 c.m. above lower margin of vagina and 2 c.m. from rami on each side, and aiming needle for level of hymen, we enter to a depth of 2 to 4 c.m. Use $1\frac{1}{2}$ c.c. of 2 per cent novocain. The posterior point of injec-

tion is half way between rectum and tuberosity of ischium. Incline needle laterally, enter 4 c.m. deep, injecting 5 to 10 c.c. of 1 per cent novocain solution.

RELATION OF THE LOCAL SURGEON TO THE RAILROAD.*

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This is a peculiar case of industrial surgery in which the employer and the employed are but remotely acquainted, in which the contracting parties seldom or never meet to discuss those things which are so vital to both. It is, as we can readily understand, a case in which a closer touch of employer and employed could be productive of better results. This, however, is made less practical on account of the railroad service being, most often, only a minor part of the local surgeon's occupation, and, to drop his regular practice to attend medical conferences at some distant place, makes too great a break in his regular practice to afford the loss of time. This difficulty seems hard to overcome.

EMERGENCY READINESS OF THE LOCAL SURGEON.—This is nothing new, only a rehearsal of the doctor in general practice. We have never a minute that we can call our own, but must be ever ready to answer an emergency call. We must be ever on the alert and always where we may be found. We, as local surgeons, hold the lives of injured people in our hands, and a minute's delay may mean death from hemorrhage, or other cause.

When a physician receives an appointment as local surgeon, he should avail himself of the first opportunity to inspect that part of the railroad which he may consider within his territory and learn the names of all places near the road, so that he may be familiar with all adjacent localities, that he may have no difficulty in finding the exact place of a wreck at any hour, day or night. Again, he should know the easiest means of approach of any place along such railroad. These matters are simple, but they are better thought out before than after an accident. Accepting an appointment means that one becomes responsible for the lives of those injured in his territory.

It is well, too, that the local surgeon should make himself acquainted with the local agents, roadmaster, section foremen and other local

employees of the railroad company. This tends to create a common understanding and friendship between himself and those with whom he may come in contact in handling cases for the company. Acquaintance tends to make a fellow-feeling that gives more pep to the surgeon and tends to make more haste on such occasions.

It is useless to recite the necessity for the local surgeon to have his vehicle in constant readiness, for that is one of the essentials of any active physician or surgeon. His car should be constantly supplied with fuel and it is next to criminal for him to try to run on worn-out castings or with other parts of his car in bad repair. A blow-out may mean a death from delay.

Then we come to the armamentarium of the local surgeon. To be ever ready to care for an open wound and prevent further infection, it is well for the local surgeon to carry in his emergency case two packages of sterilized towels, two in a package. Small ones such as barbers use are sufficient. I may mention here that all things carried should be in duplicate so that an accident to one may not be too serious. In the case of an arm or a leg crushed off, one of these towels bound over the wound may save a patient from fatal infection. Certainly no surgeon would start out without a good tourniquet. For this purpose we have found the plain rubber band most easily carried and better for general use than the most expensive instrument. A rectal tube or a large syringe hose may serve for this in an emergency, but is too frail for an arm or a leg of an adult. While the number of instruments is too great to list here, it is well to call attention to artery forceps, needles and sutures that should be ever ready so that any bleeding vessels may be clamped and tied off until a wound can be better and more permanently dressed. It is absolutely necessary to have several packages of sterilized gauze sponges in an emergency case and also some clean cotton and bandages and splint-material for temporary dressings of fractures. A vial of distilled water and a larger one of some disinfectant solution should be in the emergency case. Tablets of morphine and strychnine and nitroglycerine for hypodermic use should be in readiness to relieve pain and stimulate the heart. Disinfectant tablets, too, should not be forgotten.

Many other things might be enumerated. Tincture of iodine, adhesive plaster, collodion and argyrol solution might be mentioned as emergency essentials and should be constantly at

*Read before the fourth annual meeting of The Florida Railway Surgeons' Association, held at Jacksonville, May 14, 1923.

hand for the relief of the injured, and it is this care for the injured that we assume for our company as well as for humanity. A life saved may mean thousands of dollars for the company besides the clear conscience for having done a good deed.

It sometimes occurs that some passenger or employe on board of a train is taken suddenly ill and requires medical attention. It is customary to wire ahead to the most available local surgeon. It becomes the duty of the local surgeon, in such cases, to have such treatment at hand as may relieve as quickly as possible, so that there may be the least possible delay of such train. While this business is not directly a part of the duties of the local surgeon, common courtesy demands prompt response to such calls.

ATTENTION TO CASES.—Upon arrival of the local surgeon at the place of the injured, should the injury be such that it cannot be properly handled and completed there, it becomes his duty to control the hemorrhage, relieve the pain and shock and put on such emergency dressings as will guard the safety of the life of the patient and make him most comfortable until a more thorough care may be taken of his wants. In the case of shock, it may be necessary to call an ambulance and have the patient removed to the nearest hospital for a little time to recover from shock, after which he must be removed to one of the company's own hospitals. All ordinary cases should receive such temporary dressings as will permit them to be removed to the office or the home where they may be treated as the condition demands. The minor cases should receive immediate and thorough care. These are the cases which are liable to give the railroad company trouble in the future and should not be treated lightly. A minor abrasion may be allowed to become infected and cause the loss of a life or limb and be the basis of much litigation in the succeeding months, or a small contusion may be unobserved today and be the source of a lameness which may last through the slow grinding of the courts.

DIAGNOSIS.—This is one of the most important features of the local surgeon's work. This must be thorough and exact. Let not the slightest abrasion nor contusion pass unnoticed. In any case where litigation is liable to intervene, it is well to make a thorough and complete physical examination of the entire body, immediately noting former injuries and who treated the same and when and where such treatment was received.

It is well to secure as much of this information as possible immediately and before any advisers enter into the case, for information at this time is more apt to be reliable. Where there is any doubt as to the diagnosis, no expense nor trouble should be spared to remove all points of doubt. All of us who have been long in the service can testify to the traps into which we are sometimes led. In making a diagnosis, it is well to keep one's own counsel. It is not always necessary to publish a diagnosis to all the rabble standing by.

RECORDS.—As was stated above, the diagnosis of every case should be thorough and complete. It should not stop at this, but every point in the diagnosis should be recorded. The record should be as complete as the diagnosis. Every former disease or injury that could possibly complicate this immediate condition should be noted. If such person is at the time of such injury under treatment of any regular, or irregular, practitioner of any kind, or if he has ever been under such treatment, all this should be noted and recorded. Statements made cannot be so readily changed if they are recorded at the time of an injury. All this may not be necessary in the preliminary report, but such information may serve a good purpose if kept on file in the surgeon's office.

DISPOSITION OF THE INJURED.—It is well for the local surgeon to hold his patient under his own control until he is entirely and completely cured, unless he is passed on to some other surgeon under the direction of his company. If it is a railroad case, the company should be willing to pay for whatever attention is necessary for this complete cure. This, and only this, can relieve the company of its responsibility. To let an injured patient pass into the hands of some irresponsible surgeon before he is entirely well is to breed trouble for the company.

EVIDENCE IN CASES OF LITIGATION.—Probably this is the most embarrassing part of the local surgeon's work. Certainly we must believe that the railroad company for which we are working is made up of honest men who expect nothing but honest and true statements if we are called to testify in court. Otherwise we would not care to accept this unremunerative position. *Most* of the public, too, intend to be honest and expect nothing but the truth, but only too well do we remember how we lost a good customer just because we were unwilling to magnify the injury that we were reporting. It is here that the exact full and complete office records of the surgeon

play an important part in bringing justice to all parties concerned, for the memory of the busy surgeon may fail, but these records filed away in ink on the day of an injury do not change, and such records become more powerful as they grow older. Fair-minded people expect only the truth, whether they be railroad officials or of the laity. It is the surgeon's duty to his company that he should secure such information as will tend to relieve the responsibility of his company, and the injured patient has no moral right to censure him for securing and reporting the truth in such cases.

REMUNERATION. — Inasmuch as the surgeon should perform certain duties, it devolves upon the railroad company to reciprocate. To this end a schedule of fees is outlined and the surgeon receives his monetary remuneration for each service. This schedule is minimum on the face of it for most services rendered and for this alone few of us would care to accept so responsible a place, but, as we all know, this is only a part of our remuneration. We all have occasion at times to use the railroads. As a special favor, whether any service be rendered or not, we receive our annual passes over our own divisions, and may receive passes over the entire systems of road for ourselves and our dependent ones just for the asking. This is our privilege, and it is usually well earned and willingly granted. It helps much toward remunerating worthy servants in a worthy service.

However, the responsibility of the railroad company does not end with these fees and this family transportation. Whenever a local surgeon assumes the responsibility of the treatment of a case for the railroad company, he assumes this responsibility in the name of the company, and the company should assume all the necessary expenses to have such case receive the best possible care. Neglecting a case is really neglecting it in the name of the railroad company. If it is necessary to call an ambulance to transport a patient to some place for his care and comfort, the company should assume the expense. If the local surgeon should need an assistant to give an anesthetic or for any other reason, the company should assume the expense of having such assistant. Nothing should be neglected in the name of the railroad company which might save life or limb of one whom the company has assumed the care of. We are glad to say that our company assumes the responsibility for such bills without any complaint.

As stated in our introductory, a better acquaintance between the officials of the company and the local surgeons would tend to make a better understanding in these matters and in all matters in common between these officials and the local surgeons. We can be of frequent service to each other by studying each other's needs.

A CASE TO ILLUSTRATE THE NECESSITY OF GOING PREPARED.

It was several years ago, when the Florida East Coast Railway Company was building its branch line from Maytown to Okeechobee City, that I received a hurry call, on Christmas evening, to come at once and bring the sheriff with me. I had no definite information as to what I was to do. The time and the fact that I was to bring the sheriff made me suppose that something very serious had happened.

According to my custom, I loaded my cases with whatever I could think it possible to use. Among other things that I put into my collection of instruments was my trephining outfit, a set of very fine instruments that I had possessed several years without having occasion to use. It seemed ridiculous to think of such thing as trephining a human cranium off in the woods under such unfavorable circumstances. However, I put the set into my grip. Well, it was a great and glorious Christmas night for Sheriff Prevatt and myself, for the camp was more than fifty miles away, over the roughest road that automobile ever traveled. At Whittier, forty-four miles on the way, we took in a guide, as these were the last houses to be seen and the, so-called, road was only a trail beaten out by the camp-followers of that construction company, and there were some deep and muddy sloughs to be crossed. It was about midnight when we arrived at the camp of the construction company and learned the nature of the case to receive our attention.

It seemed that the hands had enjoyed too much of the celebrities of that yuletide occasion, and, to use the common parlance of that community, they were full. Toward night, when the festivities were growing dull from the inability of some to keep their feet under them, things took the usual turn of such celebrities, when two negroes determined to celebrate in a more exciting and memorable manner. One large able-bodied teamster had become a little too oppressive to a small Geech from North Carolina, when the Geech retaliated by creeping up secretly behind his fellow-workman to stab him

in the side of the head. The knife-blade was long and slender. It entered a little above the level of the upper lobe of the ear, severing the posterior branch of the temporal artery. The blade went perpendicularly into the bone of the cranium and broke off beneath the skin, leaving insufficient of it external to the cranium to get hold of with my forceps.

It was the hemorrhage from that little artery that created the excitement at first, and caused them to send for me, but the bleeding had stopped long before my arrival, else there would have been no need for me. Upon my arrival, the foreman told me that he had to apologize to me for calling me out at such an undesirable time, for the hemorrhage had stopped and he thought there was little for me to do. The negro teamster, hearing that remark, spoke up, "No sir, Cap'n, dat knife blade in my head yet." On examining, I found that he was correct, and I proceeded to try to remove the blade from his head. I tried my ordinary surgeon's forceps without avail, then tried my automobile pliers, but accomplished nothing. Finally, the foreman brought out an extra-large pair of pliers which he had in the camp, and, after throwing them into the fire to burn off the grease and sterilize them, we tried them with no more success than before. It was then that I took out my trephine, and, after enlarging the wound sufficiently, drilled the bone from the blade sufficiently to allow the forceps to get hold of the blade and it was extracted from that negro's head. The blade had penetrated the cranium two-and-a-quarter inches, and strange to say, did little damage to the brain, for the man suffered only slight paralysis of some of the muscles of the opposite arm. The foreman told me afterwards that he was back driving his team in two or three weeks.

Had I not gone prepared to trephine that head, the contractor would, in all probability, have been out a good teamster, and Geech would have done his part toward inflating the price of hemp, and that all due to my negligence.

A USEFUL LEG SPLINT.

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Pensacola, Fla.

Realizing the difficulties of maintaining exact fixation of the ends of long bones after fracture, especially those of the compound variety, the splint here shown was devised several years ago for the purpose of overcoming some of these real difficulties.

The blades of the splint—if they can be so termed—are of different lengths to fit varying lengths of limbs. The necessary padding is held in place by stout sutures passed through the openings, and tied firmly behind the blades. A plain surface is, in this way, left for the application of adhesive strips which are necessary to prevent rotation of the limb. There is also an adjustable attachment which can be used to prevent the foot from rotating out of anatomical line.

The splints, after having been applied laterally, rest upon suitable size sand bags, and a "cradle effect" is produced. This adds greatly to the comfort of the patient, especially relieving the heel-pressure pain so often complained of during the early stages of repair.

Counterextension, when deemed necessary, can be used without disarranging the splints after they have been applied.

Really, the most valuable feature of the splint lies in the fact that the external wound of a compound fracture can be readily treated without fear of disapproximation of the ends of the bones.

It is unnecessary to dwell upon the fact that perfect reduction and fairly complete rigidity of bone ends are necessary for a satisfactory recovery from this class of fractures.

CALCIUM THERAPY IN TUBERCULOSIS.

The resistance to tuberculosis of those who work in lime dust is traditional. Whether lime salts taken into the lungs in these cases are deposited in the tubercles, or stimulate fibrosis by mere mechanical action, or whether they exert any beneficial influence at all, is not known. Nevertheless, the therapeutic administration of calcium in tuberculosis has gained favor and has been endorsed by many clinicians. Wersen administered calcium lactate by mouth to twenty children with tuberculous peribronchial lymph nodes, and studied them, with an equal number of controls, by the fluoroscope. He believed that the treated patients showed more calcification of the nodes and a greater improvement in health than did those who had not received calcium. Clinical reports of favorable results from the use of calcium are numerous, but in a recent review of the literature, Maver and Wells¹ state that

1. Maver, Mary E., and Wells, H. G.: The Alimentary Absorption of Calcium and Its Deposition in the Tissues in Experimental Tuberculosis, *Am. Rev. Tuber.* 7:1 (March) 1923.

they have been unable to find the reports of any clinical study that has been adequately controlled. They also conclude there is no experimental proof that the administration of calcium, either by mouth or otherwise, increases the amount of calcium deposited in tubercles or other necrotic areas, unless Wersen's observation is considered experimental.

An appreciable increase in the amount of calcium deposited in tuberculous tissues by increasing the calcium intake is not to be expected, except when the blood calcium is already below normal. The normal amount of blood calcium represents about the maximum that the blood can carry. A greater amount than normal is promptly precipitated out of the blood in those tissues that are most alkaline. It does not appear that any deficiency in blood calcium exists in tuberculous patients. At least, there are no figures obtained by modern methods which indicate such a deficiency. Steinitz and Weigert² analyzed the entire body of a one-year-old child who died of tuberculosis. They found a normal total ash figure and no abnormal distribution of the inorganic elements of the ash. Jacobowitz was not able to increase the blood calcium by oral administration either in normal children or in those with tetany. It has been shown, furthermore, that the subcutaneous injection in cats of nearly lethal doses of calcium chlorid produces a rise in blood calcium, which reaches its maximum in from thirty to ninety minutes, and which falls again to normal within five or six hours. The intravenous injection of large quantities may drive the blood calcium far beyond its normal amount, but the original figure is restored in about two hours.

In view of the supposed clinical benefits of calcium in tuberculosis, and of Wersen's observation especially, an experimental study of the influence of calcium feeding on the deposition of calcium in tuberculous and nontuberculous tissues was made by Maver and Wells. Their first analyses were of normal laboratory animals to establish controls. A dose of calcium lactate equivalent to from 25 to 30 gm. for an adult person was administered daily for periods varying from fifteen to 288 days. Various tissues were then examined. It was found that the administration of calcium had not generally appreciably increased the calcium content of the

tissues, and no recognizable difference was found between animals that had received calcium for long or for short periods. A series of animals injected with human tubercle bacilli of low virulence, which were fed calcium after the lymph nodes became palpable, and another series injected with a virulent strain of human tubercle bacilli, were similarly examined. To determine the effect of calcium on the course of tuberculosis, twenty-four other normal guinea-pigs were at the same time inoculated subcutaneously with 0.005 mg. of a culture. Twelve of this series received calcium from the day of inoculation, and twelve received no calcium. Eighteen of these animals, evenly divided between calcium fed and controls, died within 135 days. Analysis of the two separate lots of tissues showed that the administration of calcium to these animals did not reduce the spread of the tuberculous lesions, or lead to a greater amount of fibroplastic tissue reaction. The average length of life of the calcium-fed animals in this series was 92.5 days, and of the animals receiving no calcium, 74.4 days. Maver and Wells say that nothing is less constant than the length of life of tuberculous guinea-pigs, even under identical conditions of dosage and environment, and the slight difference indicated here is of no significance whatever.

These experiments show, among other things, that the addition of calcium lactate to the diet of normal guinea-pigs does not increase the amount of calcium to be recovered from most of the tissues. The kidneys may contain a little more, presumably because they are excreting any excess absorbed, and the lymph nodes usually show an increased amount, presumably from the inhalation of dust. A marked tendency of calcium to accumulate in the tuberculous lesions was noted, but the amount of calcium in tuberculous tissue was not appreciably modified by feeding calcium lactate in addition to the usual diet. Tuberculous lungs showed a much less tendency to accumulate calcium than tuberculous spleens, livers or lymph nodes.

This study failed, therefore, to furnish evidence that the administration of calcium exerts a favorable influence on the course of tuberculosis. It involved numerous observations and repeated analyses of many small animals, a mass of scientific detail carefully controlled, and a considerable period of time. It is convincing. In the face of a large amount of empiric belief of the

2. Steinitz and Weigert: *Deutsch. med. Wchnschr.* 30:838, 1904.

beneficial effect of calcium, it would appear desirable to conduct clinical experiments of an equally scientific nature if the use of the calcium compounds is to be continued. Certainly there appears to be no scientific basis for their continued utilization.—*Jour. A. M. A.*, June 2, 1923.

PROPAGANDA FOR REFORM.

CALCIUM THERAPY IN TUBERCULOSIS.—From a review of the literature, Maver and Wells concluded that there is no convincing clinical evidence of the value of calcium administration in tuberculosis. They believe that no deficiency in blood calcium exists in tuberculous patients. From carefully controlled animal experiments these investigators conclude that calcium administration does not affect the course of tuberculosis in animals. If the use of calcium compounds in the treatment of tuberculosis is to be continued, clinical experiments of a scientific character should be conducted. At the present time there appears to be no scientific basis for the use of calcium in tuberculosis. (*Jour. A. M. A.*, June 2, 1923, page 1619.)

PROGRESS AND CONSERVATISM IN THERAPEUTICS.—The Committee on Therapeutics of the Council on Pharmacy and Chemistry has published a communication calling attention to two books which physicians should have—"New and Nonofficial Remedies" and "Useful Drugs." It is explained by the committee that for eighteen years the council has done its utmost to bring before the medical profession the truth concerning the new proprietary medicinal preparations which are being offered to the profession. The work and functions of the council are discussed, and it is explained that while the council was organized primarily to put a stop to the exploitation of proprietary medicines under false claims and the use of secret preparations, its activities have broadened until its work may now be characterized as a "propaganda for the rational use of drugs." The communication concludes: "New and Nonofficial Remedies" and "Useful Drugs" together furnish information concerning all drugs, old and new, which are at present essential to, or give promise of value in, the practice of medicine. They have been compiled with a special object in view, namely, to meet the needs of the student and practitioner of today. The report is signed by C. W. Edmunds, M. D., Professor of Materia Medica and Therapeutics, University of Michigan, Ann Arbor, Mich.; John

Howland, M. D., Professor of Pediatrics, Johns Hopkins University, Department of Medicine, Baltimore, Md.; Ernest E. Irons, M. D., Ph. D., Associate Professor of Medicine, Rush Medical College, Chicago, Ill.; W. T. Longcope, A. B., M. D., Professor of Medicine, Johns Hopkins University, Department of Medicine, Baltimore, Md.; G. W. McCoy, M. D., Director Hygienic Laboratory, U. S. Public Health Service, Washington, D. C.; W. W. Palmer, B. S., M. D., Bard Professor of Medicine, College of Physicians and Surgeons, Columbia University, New York City; Francis W. Peabody, M. D., Professor of Medicine, Medical School of Harvard University, Boston, Mass.; L. G. Rowntree, M. D., Sc. D., Professor of Medicine, Mayo Foundation, Rochester, Minn. (*Jour. A. M. A.*, June 2, 1923, page 1635.)

MORE MISBRANDED NOSTRUMS.—The following preparations have been the subject of prosecution by the federal authorities charged with the enforcement of the Food and Drugs Act: Woods V. Tabules (Edward J. Woods), containing zinc phosphid, strychnin and plant extractives. Lukosine (National Drug Co.), a powder containing approximately 80 per cent of boric acid and small proportions of zinc sulphate, alum and a salicylate, and traces of alkaloid, phenol, thymol and menthol. Eckman's Alterative (Burrows-Little-White Co.), consisting essentially of 94.4 per cent of water flavored with clove oil, 3.3 per cent of calcium chlorid and 2.3 per cent of plant extracts. Gombault's Caustic Balsam (Lawrence-Williams Co.), a mixture of a fatty oil with approximately 20 per cent by volume of oil of turpentine. McGraw's Oil of Life (McGraw Remedy Co.), consisting approximately of 95 per cent of kerosene and small proportions of turpentine oil, tar oil and camphor. Vital Sparks (Hollander-Koshland Co.), gelatin capsules containing a fatty oil, colored red, and a sugar-coated pill of zinc phosphid, damiana and strychnin. Mydyl Antiseptic Wafers (Chas. S. Ruckstuhl), composed of borax and starch. Syrup Leptinol (Balsamea Co.), consisting of *Leptotaenia dissecta* (a plant belonging to the parsnip family), sugar, glycerin, alcohol and water. Sangvin (Dr. M. Spiegel & Sons), composed essentially of plant drugs including a laxative drug, sugar, alcohol, glycerin and water. Peterson's Ointment (Peterson's Ointment Co., Inc.), a petrolatum ointment containing zinc oxid, tannin, phenol, and camphor. (*Jour. A. M. A.*, June 9, 1923, page 1710.)



H. MARSHALL TAYLOR, M. D., F. A. C. S.
President Florida Medical Association

The Journal of the Florida Medical Association

Owned and published by the Florida Medical Association.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of Congress of October 3, 1917; authorized October 16, 1918.

Published monthly at St. Augustine and Jacksonville. Price \$3.00 per year; 30 cents per single number.

Contributions for publication in this journal, whether scientific papers or reports of County Secretaries, should be typewritten.

Address Journal of the Florida Medical Association, St. Augustine, Florida, or 201-202 St. James Building, Jacksonville, Fla.

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Dr. H. Marshall Taylor, of Jacksonville, unanimously elected President of the Florida Medical Association at the Fiftieth annual meeting of the organization, needs no introduction to the medical profession of his state. His election unsought and spontaneous was a just reward to, and recognition of, a man of a retiring disposition, but a hard, faithful and conscientious worker in his chosen specialty. Few physicians in the state are as widely known throughout the United States as Dr. Taylor. This acquaintance has been acquired by faithful and conscientious work. He has at various times received signal honors at the hands of the profession. At the last meeting of the Southern Medical Association he was chosen as Secretary of the Section on Eye, Ear, Nose and Throat, and is a Fellow of the American College of Surgeons, a member of the American Bronchoscopic Society, and the American Laryngological Otological Society. He has been a member of the Florida Medical Association for the past twenty years, for many years an ardent supporter of the Southern Medical Association and a Fellow of the American Medical Association. During the World War Dr. Taylor was commissioned a Captain in the Medical Corps of the United States army, serving in the Base Hospital at Camp Lee. At the present time he is serving as President of the staff of St. Luke's Hospital, in addition to caring for a service at the Duval County Hospital and acting as consultant on the staff of Riverside Hospital.

The election of Dr. Taylor as President of his state association is well deserved and a fitting recognition of a brilliant man.

A WORD TO THE FLORIDA MEDICAL PROFESSION.

It is with not a little pride that the writer presents the first issue of Volume X of THE JOURNAL OF THE FLORIDA MEDICAL ASSOCIATION to the members of the Association, to our advertisers who make possible our publishing a journal, and to our subscribers.

In the face of many obstacles the organization concerned with our publication has been kept intact until at this time when conditions become favorable for the production of a medical journal that the Florida profession should be proud of and willing to support.

While we have materially improved THE JOURNAL with this issue, there is no reason why

we should not still further progress, there is no reason why we should halt—satisfied with present achievements.

The attention of our membership is invited to our advertising pages; to those advertisers who have been with us from the inception of our organ's career, and to those who have recently taken space with us. In accepting copy we are careful to protect you, when you see it in THE JOURNAL "It's so." Support our advertisers, with them it is a purely business proposition, for we emphasize we do not solicit or ask for "complimentary advertising." If it pays our advertisers to remain with us, they will stick. *You alone can make it pay them.*

A word now in regard to our scientific pages and reading material in general. President Taylor has appointed two live-wires as associate editors, Shaler Richardson and Robert McIver. The editorial staff are in complete harmony and will bend every effort to maintain and even better the standard of the present issue. A full list of collaborators has been named. Each county society secretary is contacted each month to send in items for publication under "County Society News." THE JOURNAL cannot progress, however, as a one-man proposition, a three-man or thirty-three-man proposition. It must have the complete support of the medical profession of the state. Your officers have done their share. Are you willing to do yours? THE JOURNAL believes the answer will be unmistakable.

MEETING OF THE FLORIDA BOARD OF MEDICAL EXAMINERS.

The Florida Board of Medical Examiners held its regular semiannual meeting at Daytona Beach, Florida, on June 11th and 12th.

Fifty-eight applicants applied for examination; two withdrawing during the examination.

The class represented physicians from widespread territory over the United States and was composed of several recent graduates, and a rather large percentage of physicians who had apparently been in practice in other States for a number of years.

The writer can speak only of the examination on the practice of medicine which revealed a rather woeful lack of knowledge on the part of approximately 40 per cent of those who took the examination.

A question was asked as to the symptoms and treatment of locomotor ataxia; one applicant described the disease as being a condition in

which one would fall over in the wash basin when attempting to wash one's face. One applicant described the pupillary findings as an "Argyrol" Robertson pupil. Another stated that the disease was characterized by the patient walking with his heels and toes in the air.

In answer to the question as to symptoms and treatment of diabetic coma, one applicant advised the use of hepatic extract; little mention was made of the presence of sugar in the urine and blood.

In answer to the question as to the symptoms and treatment of glaucoma, one applicant stated that it was a condition characterized by sudden loss of consciousness with high fever and should be treated along hygienic lines.

In a number of papers illiteracy was clearly demonstrated very woefully in the spelling of even simple words.

The Florida State Board of Medical Examiners has the authority to reciprocate licenses, but for the interest of the profession and the State at large, has deemed it inadvisable to reciprocate with any one; even though by adopting reciprocity the Board could, according to estimates, make, conservatively, within a period of two years, a profit of a quarter of a million dollars, which sum could be taken as compensation by the members of the Board.

The Board members accept \$15.00 a day and traveling expenses, during the period of examinations; the balance of the funds received has been used in the proceedings of revoking licenses. The small sum of money left by the old Board has been held intact and funds added to same, with the idea in mind of creating a sufficiently large sum of money to earn enough interest to provide a scholarship for premedical education for one worthy young Floridian at the State University at Gainesville, Fla., each year.

The next meeting of the Board of Medical Examiners will be held in Tallahassee, Fla., during the month of October.

The personnel of the Board is as follows:

Dr. Jas. M. Jackson, PresidentMiami, Fla.
Dr. Wm. J. Buck, Vice-PresidentBrewster, Fla.
Dr. W. M. Rowlett, SecretaryTampa, Fla.
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Mr. A. T. Stuart, AttorneyTampa, Fla.

On another page of this issue appears a capitulation of the examination conducted at this meeting.

RURAL MEDICAL SERVICE IN AMERICA.

The state of New York has 10,600,000 inhabitants. There are 15,848 physicians in the state, or one physician for each 670 persons. The question as to whether this number of physicians is adequate for the population has received special consideration by the committee on medical economics of the Medical Society of the State of New York, and the published reports seem to indicate that the supply of physicians is adequate. It is, of course, a fact that there will inevitably be some localities in which medical service is temporarily inadequate. Physicians may die, and time must elapse before others take their place. Construction of new roads leads to a rearrangement of medical locations, with temporary changes in distribution and in the ability of a physician to reach certain parts of his community. On the whole, however, the facts assembled lead the committee, headed by Dr. E. M. Stanton, to conclude that the relative magnitude of the rural health problem has been enormously magnified and to suspect that there are some fundamental inaccuracies in the data that have been circulated. In 1913 there was one physician in New York State for each 620 inhabitants, and now there is one for each 670, a relative decrease of only 8 per cent, whereas at the same time there has been a decrease of 20 per cent in the relative preventives of communicable disease. In one county a special study was made because many complaints had come as to the adequacy of medical service; it was shown by the committee that whereas there had been an actual decrease of sixteen physicians from 1913 to 1922, at the same time there had been a decrease of population and a shifting of physicians so that actually the service was better. With better roads, better telephone facilities, decreased incidence of disease, better hospital facilities and better means of transportation for physicians, medical service appears to be more readily available now than before.

As Dr. Stanton wisely points out, the three chief factors of supplying physicians to rural communities are: (1) getting the physician to the patient sick in a rural home 5 or 10 miles distant, or getting the patient that is not so sick to the office of the physician for consultation and treatment; (2) a reasonably well-trained home nursing service, and (3) reasonable hospital facilities. The relative importance of these items is 80 per cent for the first, 12 per cent for the

second and 8 per cent for the third. Bearing in mind all of the factors involved, it is the conclusion of Dr. Stanton that, instead of a shortage, there is an actual surplusage of physicians in New York State.

Several weeks ago, *The Journal* published a report by Dean E. P. Lyon of the Medical School of the University of Minnesota, relative to the supply of physicians in that state. In Minnesota he was unable to find a single town in which an osteopath or a chiropractor was serving the people without a regular physician available. There was no town in Minnesota having more than 750 population which was without a physician. The charge that persons were compelled to receive medical attention from poorly trained cultists because of the lack of physicians was not sustained by his investigation, since it was shown that the cultists tend to locate in the largest centers, just as do the physicians. It is well to have actual studies, such as these, so that claims of shortage of physicians, advanced with a view to lower the standard of medical education, may be met by statements of fact.—*Jour. A. M. A.*

LYE LEGISLATION.

Countless children are suffering and dying yearly as the result of swallowing caustic alkalis. Esophageal burns with resulting strictures from the ingestion of household lye furnishes one of the most pitiable conditions seen by the practitioner of medicine. *Lye* plays the role of the chief offender in that it is commonly used in the household and few parents are cognizant of the fact that it is as deadly a poison as those dispensed by the druggist placarded with the warning skull and crossbones. It can be bought from the corner grocery store in an attractive container as are the ordinary food products and the mother or servants, not realizing its poisonous qualities, place it in some accessible spot. Straightway the innocent curious child tastes of it and is either permanently invalided or dies. In an effort to aid in overcoming such calamities the Florida Medical Association at its May meeting, at the suggestion of Dr. H. Marshall Taylor, passed a resolution requesting our legislature to make it compulsory for all manufacturers to conspicuously label caustic alkalis, showing their poisonous nature and naming antidotes. The legislature promptly put through a bill modeled after the Pennsylvania Lye Bill, passed by the Pennsylvania Legislature on April 11, 1923.

Pennsylvania and Florida are at the present time the only states having such legislation, but the Lye Commission of the American Medical Association is very active in securing legislation in other states, and it is hoped that Pennsylvania and our own state have been pioneers in a movement that will soon embrace every state of the Union.

However, with the enactment of the bill, our campaign has just begun and every physician in the state as well as our Board of Health should aid in educating the public in the dangers of caustic alkalies and the great necessity of making them inaccessible to innocent children.

OUR DEBT TO ROENTGEN.

The very recent death of Wilhelm Konrad Roentgen, who died in poverty at the home of a friend, simply repeats what has occurred time and again to great men who have been the real benefactors of mankind. The sordid world has repeatedly been ungenerous to men of science while they have lived and afterwards spent great sums of money for monuments to impress posterity. The debt to Roentgen can never be computed. He gave freely of his knowledge to all. What he had to give is the property of no country but rather of the whole world. The field that he opened seems limitless, for it is in its infancy today, inviting us to extend our explorations in an infinite number of ways. Perhaps no one knew better the present limitations of X-rays than Roentgen himself. It is apt to be the one who is least familiar who will expect the most of any discovery or invention. The X-ray, though most important in internal diagnosis, should make none of us less thorough in our clinical studies and in making a careful analysis of the case. It is wrong to regard the X-ray as the court of last resort. It is better in most cases not to have an X-ray than to have the plates interpreted by anyone other than an expert. A man may be a good technician but a poor judge of his findings, unless thoroughly grounded in all the ramifications of his work. Our debt to Roentgen will in time be paid, in some degree, by those men who become sincere students regardless of the glamor and pay. True progress can scarcely be made in any other way. Every X-ray outfit put into the office of charlatans, to make an impression, is an outrage and insult to the name of Roentgen.

COUNTY SOCIETY NEWS.

DUVAL COUNTY.

The regular meeting of the Duval County Medical Society was held in the Seminole Hotel on the 5th of June with a good attendance.

Dr. Hanson, whose work during the recent epidemic of yellow fever in Peru is so favorably known and widely commented upon both in this country and in South America, discussed his work under the title of "Some Aspects of the Yellow Fever Campaign in Peru." Dr. Hanson, at the request of the International Health Board, has recently returned to South America to resume his activities in stamping out yellow fever in several of the republics. His headquarters for this campaign will be in Colombia.

"Nasal Headaches with Case Histories" was the subject of a valuable and interesting paper by Dr. A. K. Wilson.

Dr. James D. Love, who has had an unusual opportunity to study the subject of intestinal parasites in children, read a paper entitled "Tetrachloride of Carbon in the Treatment of Hookworm Disease."

Dr. Francis A. Copp has returned from the Conclave of Kappa Sigma Fraternity recently held in Atlanta.

ESCAMBIA

The Escambia County Society held the last meeting before the summer recess on the evening of June 12th. The meeting took place in the Naval Hospital and the members of the society were the guests of the Navy physicians. It was well attended and proved one of the most interesting meetings of the year.

Captain Angenny took charge of the scientific program and nine clinical cases were presented to the society.

Three very interesting and instructive papers were read by Drs. Cole, Bass and Poppen, all of the Navy.

At the conclusion of the scientific program a delicious informal lunch was served and the society adjourned near midnight.

HILLSBORO.

Dr. Sheldon Stringer has just recently returned from Havana, Cuba, where he spent some two or three weeks in consultation on a case.

Dr. E. S. Gilmer, member of the society from this county, who is taking a two-year course of

postgraduate work at the University of Pennsylvania, writes that he is very much pleased with the experience he is enjoying.

Dr. J. R. Harris, City Health Officer, Tampa, since June, 1921, has resigned; resignation to take effect July 1st. Dr. Harris has headed the first organized health department that the city has had, and has done a great work in this community, under conditions anything but ideal and in the face of obstacles thrown in his way by politicians and other disgruntled individuals. His work in this city is appreciated by those in a position to realize its importance, and their good wishes follow him to his future station. It is to be hoped that the successor of Dr. Harris will be a man equally competent in public health work and that the "powers that be" in the city will give him the support that a Health Officer should have.

Dr. G. C. Bottari is spending some time in New York City, where he formerly practiced, visiting clinics and renewing old friendships. He plans to be gone for some time and to conclude his trip by a visit to Naples, Italy, where he was born and where his parents still reside.

ORANGE.

Dr. J. S. McEwan is in San Francisco attending the American Medical Association Convention.

Dr. Lawrence Ingram recently sailed for Europe, where he will take a course in the diseases of the eye, ear and throat, in the clinics of Vienna.

TUBERCULOSIS IN PORTO RICO.

The laboring classes in Porto Rico suffer greatly from tuberculosis, says Dr. J. G. Townsend, of the United States Public Health Service, who recently returned to the United States after a five months' study of the tuberculosis situation in the island. The tuberculosis death rate is a little more than 200 per hundred thousand. This is greater than that of any State in the union except Colorado, where the tuberculosis death rate is of course enormously increased by the constant immigration of tuberculous patients, for whom there is no longer any hope. In Porto Rico, moreover, the tuberculosis death rate of the well-to-do classes is very much lower than that of the laboring classes. In the industrial cities on the practically level cost belt it averages about 8 per

cent of the total death rate; in the mountainous central portion it is less, averaging about 4 per cent, except in certain industrial towns, especially those dependent on the tobacco industry. The death rate for industrial women is higher than that for men. This condition is the exact opposite of that in the United States, and is supposed to be due to the fact that in Porto Rico industrial women are also wives, mothers, and housekeepers.

These high rates are not due to the climate, which is both delightful and healthful, but to the conditions under which the poorer classes live. A survey of more than a thousand houses occupied by the laboring classes in seven of the larger cities on the island reveals that practically all of them consist of two rooms, and shelter an average of six persons. Each room has an average floor space of less than a hundred square feet; and the total air space is considerably less than ten thousand cubic feet. As the one window and the door are kept closed all night long to keep out the greatly dreaded "night air," this 10,000 cubic feet has to suffice for three persons for about eight hours. As Rosenau estimates that to keep healthy a man weighing about 160 pounds requires about 2,400 cubic feet of fresh air, renewed every hour, the state of air in these rooms after being occupied all night by three persons may be imagined. Such conditions are, of course, ideal for the transmission of tuberculosis.

The usual diet of the people for the most part is also ideal for the propagation of the disease. Black coffee, rice and beans in great quantities, and sometimes bananas, oranges, and plantains complete the list.

Both the housing and the diet are due chiefly to the prevailing economic conditions. A wage of thirty cents to one dollar per day (generally fifty cents) makes it impossible for the laborer to support his family, to furnish habitable homes, and to purchase adequate food. Employers say that the average laborer does not do enough work to entitle him to higher wages; and this may be admitted. But the laborer cannot do better work, because he suffers not only from tuberculosis, but also from hookworm and malnutrition. He cannot afford to do what his doctors advise, and in consequence he cannot give his employer better labor. This vicious circle can be broken, but it has not yet been.

A comparative check by name of all the reported cases and reported deaths from tubercu-

losis in Porto Rico during the last two and a half years showed that 60 per cent of the tuberculosis deaths were never reported as cases. In other words, more than one-half of the death reports supplied the first official intimation that the patient had been ill at all. The illness is probably concealed as long as possible, sometimes until death, and in many of the reported cases until the patient was in a moribund state.

Most Porto Rico cities employ physicians who hold clinics for patients at convenient places and who later visit patients who are unable to come in person. More of these clinics are recommended. Other recommendations are for the establishment of social work, the supplying of free sputum cups, better reporting of cases, increased hospital accommodations, education of children along health lines, and the working out of a wage scale that will give the laborer a chance to preserve his own life and the lives of his family.

The great mass of the workers of the island are employed in the sugar, tobacco, fruit raising, and coffee industries.

FLORIDA JUNE EXAMINATIONS.

The Board of Medical Examiners convened in Daytona June 11, 12, for the examination of candidates desirous of qualifying to practice medicine in the State of Florida. The following table gives the net result of the examination. It will be noted that there were a total of fifty-eight applicants of whom forty-one passed, fifteen failed, and two withdrew:

PASSED.			
<i>Name of School.</i>	<i>Year of graduation.</i>	<i>Per cent.</i>	<i>School.</i>
Atlanta P. and S.	1912	78.2	R
Chicago College of Medicine and Surgery.	1917	83.7	R
Columbia University	1895	91.1	R
Eclectic College of Medicine and Surgery of Cincinnati.	1922	79.4	E
Emory University.	1915, 1916	75.1, 81.0	
	1917, 1923	75.5, 76.2	R
George Washington University.	1909	78.5	R
Harvard Medical School.	1922	83.0	R
Jefferson Medical College	1896	77.3	R
Medical College of South Carolina.	1901, 1923 (2)	80.4, 78.8, 85.2	R
Medical College of Indiana.	1904, 1909	78.3, 81.1	R

Medical Chirurgical of			
Philadelphia.	1907	80.9	R
Northwestern University.	1919	88.6	R
P. and S., Baltimore.	1895, 1909	78.1, 81.1	R
Rush Medical College.	1886, 1923	80.1, 90.7	R
Tufts Medical School.	1916	79.1	R
Universal College of			
Medicine and Surgery.	1907, 1921	75.5, 83.0	R
University of Arkansas.	1911	75.0	R
University of Boston.	1903	81.2	H
University of Cincinnati.	1921, 1922	91.5, 85.6	R
University of Georgia.	1914	81.1	R
University of Iowa.	1910	84.9	R
University of Maryland.	1903	75.1	R
University of Pennsylvania.	1899, 1921	84.2, 87.5	R
University of Pittsburg.	1912	78.2	R
University of Tennessee.	1922	84.6	R
University of Toronto.	1899	83.0	R
Vanderbilt University.	1909, 1916	76.6, 75.0	R
University of St. Louis.	1923	81.8	R
Tulane University.	1923	83.1	R

FAILED.

Universal College of			
Medicine.	1901	71.4	R
Barnes Medical College.	1897	45.4	R
Georgia Eclectic Medical College.	1897	55.7	E
Hahneman Medical College.	1902	69.9	H
Hospital Medical College of Atlanta.	1909	38.4	E
Indiana Medical College	1897	51.6	R
P. and S., Atlanta.	1905	71.4	R
P. and S., Baltimore.	1879	68.8	R
St. Thomas University.	1910	58.3	R
Tulane University.	1910	70.5	R
University of Georgia.	1911	67.4	R
University of Havana.	1920, 1922	71.8, 71.1	R
University of Nashville.	1898, 1906	65.8, 72.7	R

WITHDREW.

University of City of			
New York.	1895		R
University of Pittsburg.	1912		R

R—Regular. E—Eclectic. H—Homeopathic.

Colleges represented: Regular, 31; eclectic, 3; homeopathic, 2.

The three leading candidates with their average grade were Dr. M. Jay Flipse, of Cincinnati, a graduate of the University of Cincinnati, class of 1921, with a general average of 91.5; Dr. Walter D. Webb, of St. Augustine, a graduate of Columbia University, class of 1895, with a general average of 91.1, and Dr. D. F. Milam, of Jacksonville, a graduate of Rush Medical College, class of 1923, with a general average of 90.7.

REPORT OF AUDITING COMMITTEE.

To the President and Members of the Florida Medical Association:

We, the undersigned Auditing Committee, appointed by the President at the Fiftieth annual meeting of the Florida Medical Association, desire to report that we have audited the accounts of Dr. Graham E. Henson, Treasurer and Secretary-Editor, and find them correct in all details, and wish to commend his painstaking work.

We find the amount of past dues, collected on last year, since the meeting, show commendable activity on the part of our Secretary.

(Signed) E. W. WARREN, *Chairman*.
E. B. MILAM.

NEW AND NONOFFICIAL REMEDIES.

INSULIN.—An aqueous solution of an active principle from pancreas which effects sugar combustion. The strength of insulin is expressed in "units," one unit being one-third of the amount required to lower the blood sugar below 0.045 per cent and cause convulsions in a rabbit weighing 2 kg. which has been previously starved for twenty-four hours. The administration of insulin to diabetic dogs and to man in severe cases of diabetes mellitus restores to the body the lost ability to oxidize carbohydrate, and glycogen is again stored in the liver. If insulin is administered at suitable intervals to a person suffering from diabetes mellitus, the blood sugar is maintained at a normal level and the urine remains free of sugar. Fat is also burned and, as a result, ketone bodies do not appear in the urine and diabetic acidosis and coma are prevented. The administration of insulin is indicated in cases of diabetes mellitus which cannot be controlled satisfactorily by dietetic treatment. Overdosage of insulin is followed by the development of serious symptoms which demand immediate treatment. Insulin is administered subcutaneously one, two or three times a day before meals. The dosage required to reduce the blood sugar to the normal level must be established for each patient by determination of the blood sugar before and after administration of insulin. In

cases of coma or severe acidosis, an initial dose of 15 or 20 units of insulin may be given, followed at 3- to 4-hour intervals by smaller doses with simultaneous administration of glucose.

INSULIN-TORONTO.—A brand of insulin. It is marketed in 5 c.c. vials containing 10 units in each c.c., and in 5 c.c. vials containing 20 units in each c.c. Connaught Antitoxin Laboratories of the University of Toronto, Toronto, Ontario, Canada.

QUININE ETHYL CARBONATE.—The quinine ester of ethyl carbonic acid. Quinine ethyl carbonate was first introduced as euquinine. It is used in place of quinine sulphate and similar soluble quinine salts when a practically tasteless quinine compound is preferred.

QUININE ETHYL CARBONATE-M. C. W.—A brand of Quinine Ethyl Carbonate-N. N. R. Mallinckrodt Chemical Works, St. Louis, Mo. (*Jour. A. M. A.*, June 2, 1923, page 1617.)

ARSPHENAMINE-MALLINCKRODT.—A brand of arspenamine-N. N. R. (See New and Non-official Remedies, 1923, page 46.) It is marketed in ampules containing, respectively, 0.1 gm., 0.2 gm., 0.3 gm., 0.4 gm., 0.5 gm., 0.6 gm., and 1.0 gm. Mallinckrodt Chemical Works, St. Louis, Mo.

BARBITAL-M. C. W.—A brand of barbitol-N. N. R. (See New and Nonofficial Remedies, 1923, page 62.) Mallinckrodt Chemical Works, St. Louis, Mo.

CINCHOPHEN-M. C. W.—A brand of cinchophen-N. N. R. (See New and Nonofficial Remedies, 1923, page 90.) Mallinckrodt Chemical Works, St. Louis, Mo.

MERCURIC CYANIDE-M. C. W.—A brand of mercuric cyanide-N. N. R. (See New and Non-official Remedies, 1923, page 194.) Mallinckrodt Chemical Works, St. Louis, Mo. (*Jour. A. M. A.*, June 16, 1923, page 1775.)

ILETIN (INSULIN-LILLY).—A brand of insulin. (See *Jour. A. M. A.*, June 2, 1923, page 1617.) It is marketed in 5 c.c. ampules containing 10 units in each c.c., and in 5 c.c. ampules containing 20 units in each c.c. Eli Lilly & Co.,

Indianapolis, Ind. (*Jour. A. M. A.*, June 23, 1923, page 1851.)

AMIDOPYRINE-ABBOTT.—A brand of amidopyrine-N. N. R. (See *New and Nonofficial Remedies*, 1923, page 250.) It is marketed in substance and in 5-grain tablets. Abbott Laboratories, Chicago, Ill.

EPINEPHRIN CHLORIDE SOLUTION-ABBOTT.—A solution containing epinephrine chloride, equivalent to 1 part of epinephrine in 1,000 parts of physiological solution of sodium chloride, preserved by the addition of benzoic acid and saturation with carbon dioxide. For a discussion of the actions, uses and dosage of epinephrine see *New and Nonofficial Remedies*, 1923, page 112. Abbott Laboratories, Chicago, Ill. (*Jour. A. M. A.*, June 30, 1923, page 1910.)

PUBLISHER'S NOTE

A NEW SILVER ANTISEPTIC.

A silver antiseptic concerning which some remarkable claims are being made is Neo-Silvol (P. D. & Co.). Silver iodide is insoluble in water,

but Neo-Silvol is a preparation of silver iodide that can be freely dissolved in water. Silver iodide is very sensitive to the action of light, but Neo-Silvol solutions, we are told, do not darken as they dry. We are thus offered in Neo-Silvol a soluble silver iodide that does not stain. Moreover, it is said to be a very active germicide, equal to carbolic acid with respect to many organisms, and twenty times as active with respect to the gonococcus.

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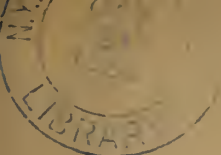
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THE JOURNAL

— OF THE —

Florida Medical Association

OWNED AND PUBLISHED BY THE FLORIDA MEDICAL ASSOCIATION

VOLUME X
No. 2

St. Augustine and Jacksonville, Fla., August, 1923

Yearly Subscription, \$3.00
Single Copy, 30c

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THE JOURNAL OF THE FLORIDA MEDICAL ASSOCIATION

PUBLISHED MONTHLY

Volume X

St. Augustine and Jacksonville, Florida, August, 1923

Number 2

ORIGINAL ARTICLES

THE TREATMENT OF BURNS AND OTHER INJURIES OF THE EYE.*

W. S. MANNING, M. D., F. A. C. S.,
Jacksonville, Fla.

In every large city, industrial accidents are constantly occurring which involve the impairment or loss of vision, or even of the eye itself. The fate of the wounded eye depends to a very great extent upon the treatment it receives; and the physician's responsibility is always intensified by the fact that the loss of one eye by accident may be followed by sympathetic ophthalmia and loss of its fellow, thus producing blindness.

While in other parts of the body a small scar is of little consequence, in the eye a nebula so small and thin as to be scarcely detected may cause very serious impairment of vision. Unless the presence of blood prevents, an ophthalmoscopic examination of the fundus should always be made, for it is only by this means that lesions of the lens vitreous and deeper structures can be detected.

It is not infrequent after railway accidents to have persons complain of impairment of vision or even complete loss of sight. These conditions are sometimes genuine and sometimes caused by the almost irresistible impulse to get compensation from a rich corporation. These latter cases heal spontaneously with the receipt of compensation. There is, however, a true traumatic amblyopia or blindness which for a long time shows no ophthalmoscopic changes, but which years afterward may show optic nerve degeneration accompanied by definite contraction of the visual field.

Nature's safeguards to the eye are many, a few being as follows: The protection of the bony orbit, the instinctive closing of the eyelids, the upward movement of the eyeball, the sensitiveness of the conjunctiva and the copious flow of tears—all help us in the guarding of our eyes. In spite of all these safeguards, however, a piece of flying metal, cold, hot or molten, often does

enter the eye to its intense discomfort and often permanent injury. It is this class of cases that are of particular interest to railroad surgeons and to which I desire to call your attention in this brief paper.

In the first place it is very important that where an eye has been lost from any cause whatever, the patient should not be allowed to go back to work in any industrial plant where he comes in contact with machinery until he has educated himself to gauge properly angles and distances; particularly the latter. This is usually the first thing complained of by a person who has recently been blinded in one eye. It takes considerable experience for one eye to judge distances, angles, etc., with the same accuracy as two—if indeed it ever does.

In my own experience I have found the greatest danger from ocular injuries lies not from the injury per se but from the possibility of infection which may follow. I have in mind the case of a woman who practically lost the sight of one eye through the very slight scratch from the finger nail of her baby who she was bathing. This injury was regarded as too trivial for medical attention; in fact, no attention was given it until about two days afterward, when the eye suddenly became intensely painful, and on presentation at my office she had a deep-seated corneal ulcer. This went on to gradual but very slow resolution; but left a widely disseminated nebula which left the sight almost useless. This eye could have been easily saved by the simplest antiseptic douches or proper medication at the time of the accident. The same system of treatment should be carried out after the removal of any foreign body from the cornea. In railroad practice these are usually particles of coke, coal, sand or metal. My sovereign remedy after the removal of foreign bodies is argyrol 20 per cent, the number of instillations depending on the condition of the eye at the time of the examination and the time elapsing since the accident. The medication being used more frequently when the injury is over twelve hours old. In these cases infection has usually started and vigorous treat-

*Read before the fourth annual meeting of The Florida Railway Surgeons' Association, held at Jacksonville, May 14, 1923.

ment is necessary to abort it. In eyes which are particularly painful and where blepharospasm interferes with the examination, a cocain suspension (1 to 2 per cent) in oil is very useful in relieving the pain. In deeply penetrating wounds of the eyeball in which it is necessary to incise, use the electro-magnet, etc. I will not touch upon as these will probably be handled by Dr. W. H. Adams, who is reading a paper along these same lines.

Wounds of the conjunctiva usually heal rapidly and not as a rule require a suture, but where the margin of the eyelid is involved a suture is very necessary, because if the margin of the lid is not accurately approximated the lashes are likely to turn in or out, and in either case a chronic inflammation of the conjunctiva and possibly the cornea will result.

Of all injuries to the conjunctiva the most disastrous in its results is a burn; especially one due to any chemical irritant such as the strong alkalis (lime) or the acids. In all cases of this kind the prognosis must be very guarded as frequently the action of the chemical extends far beyond the point of its initial application. I have seen a burn from lime that at first caused only a slight haziness of the cornea, which at the end of a week had caused its almost complete destruction. In the case of scalds or burns from molten metal the general symptoms are the same and the severity of the injury depends on the nature of the irritant and the length of time it has been in contact with the eye. Following a burn from whatever cause the pain is intense and the inflammatory reaction is rapid and violent. The eyelids are usually involved and soon become so swollen the interior is inspected with the greatest difficulty. The cornea usually becomes hazy over the greater part of its surface, but it takes from twenty-four to forty-eight hours for burned surfaces to become clearly mapped out. The burned surface soon becomes a well-defined slough and starts to separate and come away. From this point healing usually goes on uninterruptedly. In the more penetrating cases, however, the cornea suppurates deeply, perforates, and panophthalmia and complete loss of the eye ensue.

Strange as it may seem, molten metal, which one would naturally suppose would immediately be fatal to the eye, sometimes through the very intensity of its heat produces a comparatively slight injury. The explanation of this, as given

by the physicist, is that the intense heat of the molten metal produces what is known as the spheroidal state in the moisture of the eye, and the spheroids of moisture acting as a non-conducting layer protect the eye from injury. I recently saw an interesting case of this kind. A man was brought in from one of the railroad shops who had his face liberally sprinkled from an explosion of molten Babbitt metal. A small amount of the metal entered both eyes before he could close them and after closing them the interlaced lashes caught more of the metal, which of course immediately hardened. Thus he was led to my office with both of his eyes tightly soldered together, being unable to open his eyes, he could not see, and thinking he was blind he was in a very depressed mental state when brought in. It was necessary to cut all the lashes of both eyes with fine pointed scissors before he could open them. When he did so the injuries to the eyes proper were found to be negligible. The most distressing sequelæ of burns are the dense adhesions which form between the eyelid and the eyeball. These are but little amenable to treatment. The healing process after burns is slow. The vitality of the tissues is much lowered and the lids may become inverted or everted according to the nature of the burn. These contractures usually result in great facial disfigurement.

Burns of the globe are treated in the same general way as acute suppurative inflammations. The chemical burns must, of course, be especially treated. For instance, the alkalis such as quicklime should be treated with mild acid solutions, while after an acid burn alkalis are of course preferable. A mild solution of acetic acid (vinegar) is usually available for the first and normal salt for the latter.

The best thing to do in either case is to wash copiously with any bland solution until all possible particles are removed before proceeding with any other treatment. After all cases in which there is severe pain a 2 per cent solution of cocain in castor oil, or a 5 per cent suspension of chloretone in oil should be used together with ice compresses over the closed lids. Saline purgatives seem to be of considerable aid and occasionally a hypodermic of morphine in the temple is indicated. After about two days, warm applications seem to be more grateful to the patient. When the sloughs have begun to separate, the instillation of argyrol 20 per cent or silver nitrate 2 per cent are found to be very beneficial.

Iritic symptoms are, of course, combatted with atropine. During the cicatricial stage it is some times of considerable benefit to break the adhesions with a probe and keep the raw surfaces separated and lubricated with vaseline. In severe cases, however, adhesions or symblepharon, as it is called, will be formed in spite of anything that can be done.

When reduced to its final analysis the treatment of burns and nearly all other injuries of the eye reduces itself to the two basic principles of surgery, i.e., asepsis and antisepsis. The eye should be first cocainized (2 to 4 per cent) if necessary, then the neutral douche, then the antiseptics (usually the silver or of late the mercurochrome preparations) instilled until healing is complete. Do not use your silver solutions too weak. The albuminates of silver cause no more irritation in the strong than in the weak solutions and the efficiency is tremendously increased with the increased strength. Argyrol 20 to 25 per cent is my routine where there seems to be much infection. I hope these few remarks will be of some use to you in your railroad work. This is my only excuse for presenting to you a subject apparently so hackneyed; but one which, to the railroad surgeon, is frequently a cause of great anxiety and to the railroad one of great financial vexation.

MAJOR EYE INJURIES.*

W. HERBERT ADAMS, M. D.,
Jacksonville, Fla.

Three years ago I had the pleasure of reading a paper before this body, on "Minor Eye Injuries." At that time I stressed the fact that *any* injury to the eye, however minor it might appear to be at first, might develop into a very serious and dangerous one. I may state in passing that the only eye I have had to enucleate, on account of an injury, in several years, was one that at first seemed to have only a trivial injury, namely a foreign body in the cornea. By some means the site of the injury became infected, and a rapidly spreading pneumococcic ulcer developed and, in spite of the most energetic treatment, completely destroyed the entire cornea down to Descemet's membrane, necessitating an enucleation of the eye.

I shall briefly allude to only two or three of the

most important major injuries that we are frequently called upon to care for in our particular line as railway surgeons, and first I shall take up intraocular foreign bodies. These may be divided into magnetic and nonmagnetic, and may vary in size from the smallest particle of metal to quite a large piece of metallic or other substance. The small particles may not always manifest their presence by typical symptoms, and, indeed, one is often at a loss to know definitely whether he is dealing with an intraocular foreign body or not. The wound of entrance, especially if through the conjunctiva, may be entirely closed and invisible. Unless a traumatism of the lens has been produced, there may be, at first, no diagnostic symptoms whatever; however, as a rule, there will be some loss of tension, and what is more important, a lessening of visual acuity. If the foreign body is magnetic, a magnet will demonstrate its presence, either by drawing the foreign body into view, or by the patient complaining of pain when the magnet is applied. An X-ray examination will show its presence, unless it is exceedingly small. After it is definitely learned that we are dealing with an intraocular foreign body, of whatever nature, there is one clear indication, and that is to remove it at the earliest possible moment.

If the foreign body is magnetic, this can be accomplished by a suitable magnet, either a so-called "Giant" magnet, or a less powerful one, with small tips, which can be approximated to the wound of entry, or introduced into the eye, if necessary.

The foreign body can be drawn through the anterior chamber and removed through an incision of the cornea, or removed by an incision through the sclera, posterior to the ciliary body between the insertions of the recti muscles. The relative merits of these two routes are very much in dispute. My own preference is by the anterior, if possible, which, unfortunately, is not always the case, as it can be removed through the anterior chamber under local anesthesia, whereas the posterior route calls for a general anesthetic.

Given a magnetic foreign body, and the proper magnet, one can practically always remove the foreign body from the eye, but not always without seriously impairing its visual capacity. If the foreign body is nonmagnetic, we have a much more difficult problem to deal with, as the vitreous is generally cloudy, and the foreign body

*Read before the fourth annual meeting of The Florida Railway Surgeons' Association, held at Jacksonville, May 14, 1923.

not easy to locate and extract with forceps, and the vision is practically always lost, and, in most instances, an enucleation is indicated, either as a result of panophthalmitis or severe iridocyclitis endangering the other eye through sympathetic ophthalmitis.

The next class of cases that I shall refer to are penetrating wounds of the globe, either scleral or corneal, or wounds involving both the sclera and cornea. These may be incised, lacerated or contused wounds. They are dangerous in proportion to their extent and location, and whether or not they are infected. They are especially dangerous when in proximity to, or involving the ciliary region, both to the wounded and sound eye. They require a long time to heal and cause the eye surgeon more anxiety than any other class of eye injuries. Of course the simplest, shortest and easiest way to dispose of these cases would be to do an enucleation at once, but no conscientious eye surgeon wishes to enucleate an eye if he can possibly save it, and nearly all of these cases can be saved if treated judiciously and heroically. The first thing indicated is to disinfect the wound as thoroughly as possible, then to replace, or excise, any part of the iris or ciliary body that may be protruding from the wound. If the edges of the wound are widely gaping and uncovered by conjunctiva, a scleral stitch may be necessary. The placing of a scleral stitch in this class of wound is not such an easy matter as one might think it is. Unless you are extremely careful, you will cause the loss of considerable vitreous, and may entirely ruin an eye, which could otherwise be saved. I use the scleral stitch very rarely, and depend largely on conjunctival flaps, sliding ones, if necessary, to approximate the edges of the wound and hold it in position. I always give a large subconjunctival injection of cyanide of mercury, 1/3000 in these cases, and I believe that I have thereby saved many eyes that would otherwise have been lost.

Parenteral injections of 5 c.c. of whole milk, boiled five minutes, repeated at forty-eight-hour intervals, for three times, will also help to save many eyes, not only in this class of cases, but in all inflammations of the cornea, or internal structure of the eye.

The third and last class of cases to which I shall refer are burns, and as this class of cases has been fully dealt with by my colleague, Dr. Manning, I shall only call your attention to one

fact. In this class of cases, although they may apparently heal very promptly, they are quite prone to be followed by very stubborn ulcers of the cornea.

In closing I will say that in all cases of severe injury to the eye, atropine should be used first, last and all the time, except in some cases of wounds in the periphery of the cornea, where we can use for the first twenty-four hours, eserine or pilocarpin, to draw the iris from the wound, and thus prevent a relapse, or relieve one, if present.

Gentlemen, I need not tell you that in all injuries of the eye, both major and minor, strict asepsis and antisepsis, as far as practical, in all cases is absolutely necessary. Subconjunctival injections, parenteral injections of milk, or subcutaneous injections of diphtheria serum, dionin, aspirin, mercury and iodides will enable us to save the globe, at least, of most injured eyes, even if useful vision is not always preserved. A retained globe, if not too unsightly, is, in the patient's estimation, far preferable to an enucleation.

This paper, necessarily, could deal only in a cursory manner with this subject, and I trust that any points that I have not sufficiently stressed, or which are not entirely clear, will be brought out in the discussion, which I trust will be thorough.

NASAL HEADACHES WITH CASE HISTORIES.*

ALPHEUS K. WILSON, M. D.,
Jacksonville, Fla.

Headache is the most common and troublesome symptom which practitioners are called to relieve. Sinus infection and malformations of the internal nasal structures rank next to the eyes as the cause of headaches. It must not be overlooked that systemic diseases may cause this symptom. Since aspirin has become a household remedy for pain the patient as well as physician is apt to neglect to look for the cause of such distress, thereby neglecting to rid the body of a focus of infection if such be the cause until other foci are established or that its toxins have produced permanent damage.

Sinus infection is most often primary, but may be secondary from teeth, tonsils, etc. It is frequently a complication of some respiratory

*Read before the Duval County Medical Society, June, 1923.

disease, the most common being influenza. Poorly ventilated sinuses from various malformations are predisposed to infection and passive congestion. An infected sinus may be suppurative or nonsuppurative, depending on the virulence of the infective bacteria and the resistance of the mucous membrane attacked. A nonsuppurative inflammation often follows an acute purulent infection, especially of the sphenoid sinus. This alone accounts for a good many of the obscure neuralgias and optic atrophies. The sphenoid sinus is in close contact with the following nerves:

First—The optic nerve is placed in its upper and inner wall.

Second—The Vidian nerve is in the Vidian canal in the floor of the sphenoid sinus.

Third—Maxillary nerve emerges from the foramen rotundum at the lower lateral anterior part of the body of the sphenoid.

Fourth—Exceptionally we find the sphenoid in close contact with the Meckle's ganglion, semilunar ganglion, abducent nerve, motor oculi and the mandibular nerve. The posterior ethmoid cells are often found in close contact with the canal of the optic nerve.

It has been shown by Sluder and other investigators that by means of the Holmes nasopharyngoscope nonsuppurative inflammations may involve only certain areas of the sphenoid cavity, thereby accounting for the nerve affected; this in turn gives certain neuralgias and headaches. Sluder found by experimenting with the faradic current attached to the needle, if placed on certain nerves, the following neuralgias were produced:

First—Vidian nerve. Vidian neuralgia, pain in ear, mastoid, occiput, neck, shoulder blade, shoulder, arm, forearm, and hand.

Second—Maxillary nerve. Maxillary neuralgia, pain around eye, teeth, and temple.

Third—Meckle's ganglia. Meckle's ganglion neuralgia (nasal ganglion), pain begins at root of nose, in and about the eye, the upper jaw and teeth, and extending backward to temple, ear, emphasized at the tip (5 c.m. back of mastoid tip), occiput and neck, and often extending to shoulder, arm and to fingers.

Dr. Leon E. White, of Boston, recently published thirty-three cases of involvement of the optic nerve from accessory nasal sinus infection. The report shows that chronic infection of a low-grade nonsuppurative character will produce

equally as great harm to nerve tissue as the suppurative type. He emphasized the mode of infection in his cases was by continuity.

A suppurative or nonsuppurative inflammation of a sinus may affect a nerve as follows:

First—By direct extension by continuity of the inflammation or the toxin.

Second—By toxemia, from focal infection by the way of the blood stream or lymphatics.

Third—By bacteriemia from focal infection by way of blood stream and lymphatics.

Fourth—By pressure on a nerve in a bony canal from periostitis.

Fifth—By lessening the diameter of a canal by increasing the bone structure.

The natural opening of the sphenoid sinus is in the anterior wall midway of the roof and floor. Thus poor drainage is the most probable cause why the maxillary, and Vidian nerves are more often affected than the optic nerve.

The other great factor concerning causes of headaches is malformation of the parts in the nasal cavities. This has special reference to the nasal septum, the middle and superior turbinates, and the uncinate process. These structures directly determine the size and shape of each nasal passage, the drainage and the aeration of the sinuses, and influence the health of the nasal mucosa. The soft and hard tissues alike take part in this affection. Malformations are most often acquired as from external injuries, obstructive nasal breathing from adenoids and enlarged tonsils, nondevelopment of the upper jaw, and from recurrent attacks of rhinitis.

Malformation may assume the hypertrophic or the atrophic type and both are as a rule present in the same nose. Hypertrophy is most often the precedent of atrophy. The change begins in the mucous membrane and extends to the cartilage and bone. The transition is effected in the bone by the activity of the osteoblast or bone-depositing cells and the osteoclast or bone-absorbing cells. In the fetus and the newborn the sinuses are very minute and some are only dents in the tissues. But as the bones of the face enlarge for the attachment of muscles and the neck thickens, the osteoblast and osteoclast cells are stimulated to fill in the space; by this means the sinuses are formed.

By recurrent attacks of rhinitis a false stimulation is made to the structure cells and abnormalities are produced which alter the nasal passages and often obstruct the outlets of the sinuses. The

nasal passages may become larger or smaller; in the first instance the air is not properly warmed, moistened, and filtered, and in the second instance a sufficient amount of air is not taken for oxygenation. The hypertrophy may obstruct both nares by a thickened nasal septum and spurs; may obstruct the frontal sinus opening or anterior ethmoid openings by a thickened uncinat process and enlarged bulla ethmoidallis. Or it may obstruct the openings of the posterior ethmoid and sphenoid sinuses by a thickened nasal septum posterior or by an enlargement of the posterior end of the middle and superior turbinates. The latter may only be discoverable at operation. Sluder believes that the overgrowth of bony tissue of nerve canals causes by pressure many obscure optic atrophies and neuralgias of the Vidian and maxillary nerves.

As to the diagnosis of nasal headaches a careful history should be taken; neurosis and systemic diseases ruled out. The nasal cavities should be examined for pus, condition of mucous membrane, deformities, etc. The nasal mucosa has been termed by Dr. Shea, of Memphis, the show window of the sinuses. No sinus should be excluded by transillumination or X-ray from being infected without a careful inspection of the nasal cavity. Tenderness to pressure on upper inner angle of orbit is termed Ewing's sign. This is the chief point of diagnosis for vacuum frontal headaches. The tender spot is the thinnest wall of the frontal sinus and it is the place of attachment of the pulley of the superior oblique muscle. This headache comes on after reading or after any close work.

The treatment is medical or surgical, or medical and surgical. Experiments on the cadaver have shown that medicine injected in the region between the middle and superior turbinates was usually found in the sphenoid sinus. Cleansing agents, astringents, counter-irritants, and anesthetics are used as indicated. Surgery is resorted to in bony obstruction to favor drainage and proper aeration of the sinuses. Surgery should be so done as to preserve as near as possible the normal secretory, radiation of heat, and filtering of the air functions of the nose. The technique as outlined by Dr. Pratt, of Minneapolis, probably answers this requirement better than the operations laid down in the textbooks.

It is the purpose of this paper to bring out the following:

First—To explain the causes of headaches from nasal origin.

Second—To denote the two factors of etiology, namely, sinusitis and malformation.

Third—To emphasize that a sinus infection may be either suppurative or nonsuppurative.

Fourth—That malformations may produce headaches by causing a vacuum in a sinus or by pressure on a nerve.

Fifth—The danger of not correcting recurrent attacks of rhinitis.

Sixth—Transillumination and X-ray are only confirmatory to diagnosis.

Seventh—The importance of nasal inspection for diagnosis of headaches and neuralgias.

Case 1.—Male, age 30, barber by occupation, suffers with headaches over brow and temples, usually begin on left side. Has had attacks off and on for two years, but they have been more severe for past three months. Headache begins a short time after working at his trade or reading. Has not been able to work for three months. Ewing's sign present on left side. Inspection shows the uncinat process thickened. Middle turbinate lies very close to outer wall. Probe fails to pass freely into frontal sinus. Wassermann negative. Diagnosis: Vacuum frontal headache. Treatment: Cocainized anterior nares, fractured and raised middle turbinate from outer wall and passed probe into frontal sinus. Results, cured.

Case 2.—Female, age 28, washerwoman, since attack of influenza two years ago has had headache almost constant, not able to work for two months. Pain over mastoid, occiput and neck. Wassermann negative. Inspection anterior nares negative. Diagnosis: Vidian neuralgia. Treatment: Prescription of menthol and camphor in liquid petrolatum, with directions to instil ten drops in each nasal passage three times per day while lying down face up, head hanging over edge of bed. Patient returned two years later stating that she had been relieved of headaches since beginning treatment. It is very probable that she had a chronic nonsuppurative inflammation in the sphenoid over the Vidian nerve.

Case 3.—Age, 32, female, housewife, headaches began two years ago following a severe head-cold or influenza. Since that time she takes colds frequently. During the attacks of each coryza the pain is very severe over brow, temples mastoid, 5 c.m. posterior of mastoid tip, over occiput, neck, and often in shoulder, arm, and hand. As the head-cold improves she feels a

dripping of muco-pus in throat, this is accompanied with a lessening of pain. For the past year the pain between attacks have been continuous but less severe. For the past three months headaches have been so severe as to keep her in bed most of the time. Wassermann negative. Nose examination negative. Pharynx and epipharynx show an atrophic catarrhal condition. X-ray shows left sphenoid sinus probably pathological. Medication as in case 2 for two weeks with no results. Operation under local anesthesia showed a subacute sphenoiditis with a small amount of pus present. The opening of the sphenoid was blocked by the hypertrophied end of the middle turbinate and granulations. The sinus cavity contained polypoid tissue and pus. The posterior end of middle turbinate was removed, anterior wall of sinus removed and cavity lightly curetted. At the end of two days pain was greatly relieved, but was not entirely so. At the end of fifteen days the sinus was mopped with phenol in glycerin. She returned in three months saying that she had been entirely relieved since the medical application. Diagnosis: Maxillary and Vidian neuralgia. At the onset of attacks she had a purulent sphenoiditis followed by a low-grade infection or nonpurulent.

Case 4—Female, age 43, house cleaner, has had headaches and head-colds for past year. About three months ago the complaint became so bad as to unfit her for work. She also complains of not being able to breathe through nose. Wassermann negative. Ewing's sign present. Muco-pus exuding from anterior nares, septum thickened to such an extent as to occlude both nares. Diagnosis: Hyperplasia of septum with vacuum frontal headache. Treatment: Submucous resection. Results, cured.

Case 5.—Male, age 23, laborer. Has had headaches, chronic head-colds and difficult nasal breathing since ten years old. Polypi were removed two years ago with relief of complaint. Three months ago he contracted severe rhinitis, with pain over left cheek, brow and temples. The headaches have been so great as to prevent him from working. Some difficulty in breathing on left side. X-ray suggested no pathology in sinuses but polypi in posterior nares. Wassermann negative. Examination of nares shows pus under anterior end of middle turbinate on left side. Irrigation of left antrum brought away large amount of pus. Two polypi were removed from left nares. Radical operation on left antrum with

nerve-blocking anesthesia. Results, cured. Diagnosis: Maxillary neuralgia from suppurative infected antrum.

MECKLE'S GANGLION AND GLAUCOMA.*

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Prof. Felix Lagrange, of the National Academy of Medicine, Paris, has recently issued a book, "Du Glaucoma et de L'Hypotonie," which may be considered the last word on this disease. Lagrange takes the position that in glaucoma "there is a neuropathy producing a hypersecretion, as first postulated by Donders, leading to increased tension, when, as shown by Knies, the anterior chamber angle becomes blocked."

So far all are agreed, glaucoma is a hypertension. This hypertension is initiated by a neuropathy. But it results in hypertension only when the anterior chamber angle becomes blocked. The two necessary conditions of glaucoma then are *increased secretion and poor drainage*.

The increased secretion is due to a neuropathy, but no one has as yet designated the particular nerve that has gone awry. If we could place a finger on that nerve it would be a distinct advancement. That is the object of this paper.

Morax and Girard, studying the intraocular tension in animals, observed that if the needle of the canula came in contact with the iris, the tension was so disturbed that the animal had to be abandoned and a fresh one taken. Such was the effect on tension of a stimulus applied to the iris.

Magitot later measured the disturbance of tension caused by local stimulation of the iris. Using cats for this purpose, he found that the normal tension is 30 m.m. of mercury, but in three minutes after the needle of the canula touched the iris the tension mounted up to 42 m.m., and in seven minutes reached a maximum of 56 m.m. of mercury.

Turning now from the eye to the nose, Sluder, of St. Louis, is the star witness. He reports that in a particular case after cocainizing the nasal ganglion on the right side, the eye lid drooped and the pupil contracted to about half the size of its fellow. This causes him to remark:

"The case presents this interesting phenome

*Read before the Fiftieth Annual Meeting of The Florida Medical Association, held at Jacksonville, May 15, 16, 1923.

non; that through the nasal ganglion in this case must pass a large part of the sympathetic supply which goes for the elevation of the eye lid and to the pupil."

To me the interesting point is the proof that a nerve impulse from the nasal ganglion has a direct path to the pupil. Remembering the anatomy, it will be seen that such an impulse must traverse the structure that secretes the aqueous, namely, the ciliary body. Here then we have Meckle's ganglion connected with two secreting structures about the eye—the one external, the lachrymal gland; and the other internal, the ciliary body. Stimulation of the ganglion excites excessive secretion of the lachrymal gland, and anatomically and physiologically we have every reason to expect a similar effect upon the ciliary body.

I now want to introduce a bit of therapeutic evidence. Mrs. A., 33 years old, has eyes with anatomically poor drainage. The irises are cupped forward like saucer bottoms. Since this is a defect of anatomy, it is to be assumed that it has existed from birth. Yet she gives no history of eye trouble till three years ago. During the first thirty years of her life she was a potential case of glaucoma, only waiting for the neuro-pathology that would stimulate hypersecretion. Three years ago the thing happened. Both eyes were involved in a glaucomatous attack, from which she has suffered ever since. The tension is always high, but varies from day to day, some days being almost normal. It is always aggravated by a "cold in the head."

At such times both pain and tension can be relieved by either of two procedures: either by cocainization of the nasal ganglion or by the installation of $\frac{1}{2}$ per cent solution of eserine into the eyes. Cocaine is more prompt than eserine, and relieves first the pain, and then the tension. Eserine on the other hand relieves the two slowly but simultaneously. She has a hyperplastic rhinitis in which both sides are involved.

As I interpret these phenomena the cocaine relieves the pain by blocking the sympathetic nerve. At the same time it blocks off the pathological impulse that is causing the excess secretion. That done, the drainage, though poor, gradually gains till normal tension is reached. The eserine on the other hand improves drainage by contracting the pupil. With improved drainage the tension gradually eases down and with it the pain.

Mrs. M., 28 years old, has eyes with normally good drainage, but she has a pathological nose, as will be seen later. The eyes are described as having been "poor" for years, but no diagnosis of glaucoma has ever been made. Recently she reported for help for her poor vision. Since the tension of the eyes seemed normal, atropine was used for refraction. Forty-eight hours later an acute high tension developed in both eyes accompanied by severe pain. Though bilateral, it was more pronounced on the left side.

A nasal examination at this time disclosed a supersensitive area in the vicinity of Meckle's ganglion on the left. Cocainization of this area promptly relieved both the pain and high tension in both eyes.

In another forty-eight hours the condition returned. This time $\frac{1}{2}$ per cent solution of eserine installed into the eyes contracted the pupils and relieved the tension and pain, but less promptly than the cocaine had. The patient was now given $\frac{1}{4}$ per cent eserine to be installed into the eyes every four hours for ten days. This contracted the pupils and provided for drainage till the effect of the atropine passed away.

Here was evidently a case in which the Meckle's involvement, while probably always keeping the secretion into the eye excessively active, still had not increased the tension to pathological proportions till the dilatation of the pupil interfered with the drainage.

Mrs. B. is a still more instructive case, and being in my own family—my apologies—it has been observed at all hours day and night. Both eyes have good drainage, and there is no demonstrable sensitiveness in Meckle's area on either side. But the spaces between the middle turbinates and lateral walls, particularly the right one, are rather restricted. So that with a little turbulence the maxillary ostia becomes completely occluded. This has happened at times in the case of both maxillary sinuses, but most frequently the right. She had a severe attack of "flu" in February and since then these recurrences, more or less continuous at first, have gradually become somewhat intermittent, though they have not altogether abated even at the present writing, May 10th. A typical instance may be described as follows: She first notices a feeling of weakness, not referable to any particular part of the body. More than once she has failed utterly to suspect the nose. When this is continued for a while, a frontal headache develops, more exces-

sive on the right side, and later pain behind the ear and in the occipital region. At this time she is highly keyed up. At this time the eyes begin to have a feeling of tightness, and pain, more emphatic in the right. And then in the right cheek an area sensitive to pressure on the bone develops. It is this sensitive point that definitely fixes the locus of the trouble just as Ewing's signs fixes it in the case of frontal sinus. She at last develops what she describes as a jacket of pain involving the entire chest from the diaphragm up. This is a typical onset and sequence of symptoms reaching intensive proportions.

In all this the most outstanding symptom is the condition of the eyes. The tension as estimated by palpation is very high. The pain likewise, which is aggravated even by the shutting and opening of them. The right more severe than the left. At such times I have not been able to detect any dilatation or inequality of the pupils, but the greenish hue that is so characteristic of glaucoma is very evident. Indeed, if this condition of the eyes persist, one would be compelled to make a diagnosis of glaucoma. (At the present time, of course, the condition is generally relieved before it goes too far, but before the trick was learned it often reached these proportions.)

Now let a styptic on a small pledge of cotton be applied. At first the applicator cannot be passed behind the middle turbinate on account of the turgescence. But as the astringent begins to take effect, the space opens up and it can then be thoroughly mopped out. This done, a faint sound is heard like air breaking through one bubble at a time every three or four seconds, until four or five or six or even more have been heard. These sounds can be heard quite plainly by both the patient and the physician a yard or more away. She has heard it so often that she always listens for the "creaking," as she calls it. When it begins to creak she knows that relief is close by.

It might be pointed out just here that it is immaterial what astringent is used. I have used adrenalin, alum, silver nitrate, and cocaine all with equally good results. At the present time I usually use $\frac{1}{2}$ per cent solution of novocaine with 1/8000 adrenalin. This shrinks the tissues promptly and is not painful.

After the creaking takes place the pain begins to subside: first the jacket and then the headache, and then the maxillary sensitiveness to

pressure, and she can, for the first time, relax.

The pain and tension of the eyes and the sensitiveness to palpation through the lids are the last to go. After this the patient feels quite well.

The interpretation of these phenomena are self-evident. Whatever it is that causes the turgescence, it starts it all. The turgescence blocks up mechanically the maxillary ostium. With the ostium closed, the contained air is soon absorbed, so that a partial vacuum is produced in the maxillary sinus. This vacuum in some way excites irritation of the nasal ganglion. This in turn stirs up headaches, both frontal and occipital, and the pain in the chest. It also excites the lachrymal gland to excess secretion as shown by copious watering of the eyes, and (presumably) excites the ciliary body to excess secretion, and at such a rate that the normal drainage of the eye, even though good, is inadequate, so that gradually the intraocular tension increases, and with it the pain and sensitiveness.

There is one feature in all this that I have no explanation for, and that is why both eyes are involved when the nasal ganglion on one side only is disturbed. I only know that it is so. It is true that the eye on the side of the offending nerve is generally the more involved, still its fellow rarely or never seems to entirely escape.

All in all, the evidence here presented, if not conclusive, would seem to point irresistably to an intimate connection between Meckle's ganglion and glaucoma, a fact which, if sustained, will make it a convenient point of attack for therapeutic purposes, and may indeed revolutionize our practice in the treatment of this dread disease.

Note.—No one seems to have suspected the connection between Meckle's ganglion and glaucoma. Reporting a case of an eye lost from glaucoma and which afterwards developed an acute condition, which was relieved by cocaineization of Meckle's ganglion, Sluder remarks: "This case to me is exceedingly interesting as showing the power exerted over the eye from the nasal ganglion. Whether this be a trophic influence or whether it be the result of the control of pain is to me very difficult to decide. * * * It would appear every now and then that the influence is trophic. * * * Many times I have obtained most beneficial results for the eye condition where the ophthalmologist was having a hard time to control a bad iritis."

It is obvious from this that Sluder, who seems to have been closer to it than any one else, never suspected that he had put his finger on the fundamental cause of glaucoma. In the literature at my disposal I have not found it mentioned. Furthermore, at the last meeting of the Southern Medical Association, Dr. Joseph Heitger, of Louisville, read a paper under the title: "Some Observations on Eye Lesions of Nasal Origin." While Dr. Heitger discussed the subject extensively, and quoted freely from the literature, no mention was made of glaucoma. This could hardly have been overlooked if the connection had been made, and it certainly could not have been otherwise eliminated without mention from a paper under this title.

TREATMENT OF FRACTURES OF THE LOWER ONE-THIRD OF THE FEMUR.*

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There are no fractures of the femur so serious as those of the lower end, and none that require such a great amount of careful handling.

The information given by most textbooks is meager. Scudder, in his last book, says, "The Thomas splint is indicated or some modification." To the general practitioner who cannot get his patient to a hospital, this form of apparatus for all fractures of the lower end is impracticable, and if hospitalization can be accomplished I do not think it is indicated in all cases.

I am omitting the etiology and pathology because this you all know. Diagnosis is now readily made or confirmed with the X-ray.

In all cases of fracture about and into the knee joint, there occurs enormous swelling, and if this is extensive, we should place the limb in a comfortable position and wait a few days until the swelling subsides.

Under anæsthesia reduction of the fracture should be attempted. This is not easy in all cases.

In the *transverse supracondyloid* ones, the lower fragment is pulled backward by the combined action of the gastrocnemius, soleus, et plantaris muscles, and the upper fragment pulled upward by the rectus. Some authorities claim that this action of the muscles is negligible, but we have found that they exert a strong traction on the lower fragment enough at times to produce a severe pain from pressure on the sciatic, shut off the circulation on the popliteal vessels, and greatly interfere in the reduction. Upon a Hawley table these fractures can usually be easily reduced with extension and manipulation. If they will stay put, and you should prove this with the fluoroscope, then a plaster paris cast is applied, from waist to and including the foot, in an extended position.

If this transverse fracture be complicated with a T one the same treatment is indicated. If you cannot maintain your fragments in apposition, then you must use the Thomas splint with Steinman's pins, or the calipers to produce traction. The Steinman pin is placed through the lower end of the femur, the thigh swung in a Thomas splint with leg flexed (double inclined plane)

and extension applied in the direct line of femur. This pull through the pin tilts the lower fragment up and with a little manipulation the fracture can be put in perfect alinement. Tilting too far forward of the lower fragment does not occur unless the pins or the calipers are placed too far forward. The pins or calipers can be used with local anæsthesia, but in difficult cases where the leg must be manipulated, general anæsthesia is needed.

If you cannot hold your bones in alinement by traction then it becomes necessary to operate. In simple fractures we expose by incision on outer side of leg, make strong traction (this is easily accomplished on Hawley table) and by the use of hooks or other bone instruments slip or pull or pry the fragments into place. If, when the extension is released, the fragments remain in apposition, close your wound and apply a plaster cast. If they do not remain in good position, bone plates are applied and cast put on.

Oblique fractures are very difficult to hold in position. Here, again, we make use of our Thomas splint, with calipers or Steinman's pins to make our extension. It has been my experience that good position is hard to maintain, and if any difficulty at all is experienced in keeping your fragments in place operate at once. The Parham-Martin bands are the best appliances to use, easy to apply and they certainly hold the fragments in position. Bone-plates, nails or pegs can be used. Sometimes it may be found necessary to remove a piece of the end of the shaft.

Fracture condyles are very rare. They are reduced by flexion and manipulation and put up in plaster.

In the treatment of open and infected fractures, sometimes with loss of bone, we are up against a difficult proposition. If the opening is small, sterile, and the fracture reduced, the wound should have sterile dressings, extension by calipers or Steinman's pins, and swung in a Thomas splint, bent to make a double inclined plane. If the fracture is comminuted or the opening large and dirty, the wound should be enlarged, cleaned, pieces of bone removed, bone put in proper position, Dakin's tubes inserted and thigh swung in Thomas splint with extension as in simple fracture.

In gun-shot wounds, infected, and with loss of bone it sometimes becomes necessary to fasten the ends of bone together, as you may often get union by plating, wiring, etc., if your wound is

*Read before the fourth annual meeting of The Florida Railway Surgeons' Association held at Jacksonville, May 14, 1923.

kept under continuous Dakin's treatment, properly instituted.

The after-treatment of these fractures is very important on account of their close proximity to and oftentimes into the knee joint. Our plaster casts are removed at the end of six weeks, and the leg inspected; if everything is all right we put on another light cast and let our patient up with crutches, not bearing weight on his leg until the eighth week. Then the cast is removed and the patient allowed to gradually use his leg. During this time the fracture is fluoroscoped from time to time, and after the cast is removed, active and passive movements of the knee joint are commenced. Eighty-three per cent of all fractures of the shaft of the femur, including those of adult life and childhood, are solidly united in nine weeks.

The after-treatment of the fractures that are swung with traction by means of the calipers of Steinman's pins is beautifully described by Pearson and Drummond:

"Success in the management of all fractures, and especially in femur cases, depends on the amount of care bestowed on them. No method will give uniformly good results except by constant attention to the details of its management. No method allows the surgeon to dispense with close personal attention, which must be very frequent in the early stages. The nurse's part is of the utmost value, so is that of the masseuse, but unless the surgeon knows the difficulties of both * * * his ultimate results will be poor * * *.

"In the first place the surgeon should remember * * * the importance of delicacy of touch and movement. Rough handling during dressings is a crime. Bumping against beds is clumsiness excusable only in the untrained. The actual control of the fracture will entail a considerable amount of work on the part of the surgeon.

"By inspection, palpation, radiography, and measurement he will get complete information as to his success or otherwise in correcting disability or deformity.

"He will find that in many cases he has to make alterations in the positions into which the limb was originally put. In most cases he will have to make daily minor adjustments at first.

"The adjustments consist of increase or decrease of abduction or adduction, more or less flexion of joints, tightening of posterior slings, progressive use of pressure pads, attention to cord and pulley, etc.

"Above all, it is his special duty to carry out the daily movements of the knee joint.

"It is our practice," and I approve his practice, "to begin this on the earliest possible day after the injury, i. e., immediately the patient is fitted with his permanent splint, knee flexion attachment, and caliper extension * * *.

"Assuming that the case is a recent one, we begin by lowering the foot 1 or 2 inches a day until the heel reaches the bed, by which time the knee will have been flexed through, say, 40 degrees. This may take the knee a week. We then work upward 1 or 2 inches a day until the upper limit is reached, after which wide movements can be carried through every day * * *. These movements should not be delegated to others and must be done regularly and adequately. If the knee is left unmoved for a week at a time some mobility will be lost and will have to be regained gradually. Later, when traction calipers have been discarded and some union has occurred, the movement of the leg can be relegated to the patient * * *. Movements of the ankle and toes must be attended to also."

X-rays should be taken at necessary intervals to be sure of the progress made in the conduct of the case.

Inspection of the fractured limb should be made at least daily. Measurement should be made twice a week during the first few weeks and recorded (Pearson), the internal malleolus being reached through the bandage. Parts of the apparatus may need changing, and straps may require tightening or loosening. The heel and sacrum will require attention because of the constant pressure from lying in one position. Suspension of the limb will diminish danger of pressure.

Ordinarily, there will be little or no pain associated with the repair of the fracture. After about four weeks all apparatus should be removed and the limb thoroughly inspected, to detect, if possible, any uncorrected deformity, and to determine whether union is yet firm. In from four to six weeks repair in a healthy child or young adult should have advanced to the state of firm union. Ninety-seven per cent of fractures of the shaft of the femur in patients under ten years of age will be united in seven weeks (Paul). The apparatus should be finally removed. The thigh should be washed and thoroughly oiled. The patient should be permitted to lie in any position in bed without retentive apparatus for one week. The patient should not be allowed to

bear weight upon the unprotected thigh until after the ninth week. At the ninth week he should be allowed up and about with crutches, and a moderately high-soled shoe (2 inches) should be worn upon the foot of the uninjured thigh. He should bear no weight upon the injured leg. The seat of the fracture should be protected by coaptation splints and straps or a light spica plaster of paris bandage from the toes to above the waist. A Thomas splint, fitting into the sides of the sole of a shoe, makes an inexpensive and easily handled protective splint. This may be used in the fracture of the femur at whatever portion it is broken after union is firm. The support afforded by this splint enables the patient to move about early and protects the recent fracture from too early weight-bearing. The general health is thereby improved and lateral bending at the seat of fracture is prevented. At the end of twelve weeks all support may be discarded and the adult patient encouraged to gradually bear his weight upon the injured limb. Of course, fractures of the femur vary considerably in the time the patient is able to get about, but the foregoing routine is that of average uncomplicated cases.

SUMMARY.

1. *Simple fractures* that can be reduced and remain in position should be put up in plaster.
2. Simple fractures whose fragments will not remain in apposition and position should be operated, using plates, pegs, etc., and put up in plaster.
3. Open fractures should be swung, extension with Steinman's pins or calipers.
4. Open infected fractures should be opened, and Carrol-Dakin treatment, institute swung and extension by pins or calipers.

CARDIO-VASCULAR TROUBLES AND SOME SUGGESTIONS AS TO TREATMENT AND PREVENTION.*

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In undertaking to write on this subject, I wish to say in the outset that I am contributing largely the findings of other and more able observers. The etiology and pathology of cardio-vascular diseases is a deep scientific proposition, so I have chosen rather to speak of cardio-vascular troubles, covering, as this term does, that great symptom-complex known as Bright's disease and

the more modern, though allied, proposition of hypertension, or high blood pressure.

Preventive medicine has scored great success in reducing the death rate of epidemic and so-called infectious diseases, but deaths from heart disease, with its kidney complication, is on the increase and, according to statistics in 1920, 124,000 persons died in this country in that year from these diseases. Insurance statistics go to show that diseases of the heart and kidneys and of the digestive tract show always a large proportion of the causes of death for which they are called on to pay. Beginning with the heart, we have enlargement of this organ, broken-down valves, aortic degeneration and a general arteriosclerosis of the arterial system. This condition leads on generally to apoplexy and paralysis and death; hypertension and heart failure generally noted.

When we couple this heart condition with nephritis, either acute or chronic, and the consequent insufficient elimination of the waste products from the blood stream, we have the starting, or at least a starting point for hypertension. Whatever forces and influences that go toward the increased work of the heart ultimately lead to dilatation of the heart and weakening of its normal function.

From the article by George Edmeston Fahr, in April 7th number of *The Journal of the American Medical Association*, I quote some interesting statistics. He says: "Having pointed out the high incidence of high blood pressure in chronic heart-muscle failure, it becomes necessary for me to show that it is the probable cause of heart failure (deaths). Allbutt, the best-informed student of hyperpiesis, remarks on the frequency with which these patients develop heart failure. Krehl, in his treatise on heart-muscle disease, attributes a certain amount of heart failure to high blood pressure. Romberg in his treatise on heart disease published in 1921, states that 35 per cent of all chronic heart-muscle disease is associated with arteriosclerotic kidneys, which is equivalent to saying that at least 35 per cent of chronic heart-muscle disease is associated with chronic hypertension. Forty-five per cent of 117 patients with nephrosclerosis who came to necropsy in his clinic, died of heart failure, 44 per cent died of apoplexy, and 11 per cent died of uremia.

"Pathology offers some very good indirect evidence that chronic heart-muscle failure is frequently associated with hypertension. Hecht, in

*Read before the Fiftieth Annual Meeting of The Florida Medical Association, held at Jacksonville, May 15, 16, 1923.

analyzing the result of 4,000 necropsies, finds that if valvular disease and chronic glomerulonephritis are excluded, that 72 per cent of all hearts showing hypertrophy and dilation of the left ventricle are associated with arteriosclerotic kidneys. As arteriosclerotic kidney of this type is always associated with hypertension, it is clear that something like 70 per cent of all chronic heart-muscle disease must be associated with hypertension."

These are his significant conclusions:

First—Hypertension is the most constant and most important factor in causing chronic heart-muscle disease, often called chronic myocarditis.

Second—About 75 per cent of all cases of chronic heart-muscle diseases are associated with hypertension, or follow in its wake.

Third—Chronic or acute infections play a minor role in the production of heart-muscle disease. Acute infection is an adverse factor in chronically weakened hearts.

Fourth—Approximately 50,000 persons in the United States die of hypertension heart every year.

We see now that hypertension deaths are most generally associated with arteriosclerosis and consequent weakness and dilation of the heart.

We shall mention some of the most common causes of arteriosclerosis. Arnold Lorand, of Carlsbad, in his book on "Old Age Deferred," claims that the adrenal glands play a most important part. He goes on to say: "There can no longer be any doubt that these glands exercise a controlling influence on the heart and the whole circulatory system. They are in intimate relation with the principal nerves that regulate the heart: the sympathetic and the vagus. Thus, for instance, emotions that act on these nerves excite through them a hypersecretion of the adrenals and a contraction of the small blood vessels with a rise in the blood pressure. By the hyperactivity of these glands their secretion, in larger quantity than usual, is thrown out into the system, producing toxic effects which result in an atheromatous condition of the arteries.

"According to Professor Romberg, there is only high blood pressure in such cases of arteriosclerosis when there is a diseased condition of the kidneys. According to this leading authority on heart diseases, high blood pressure is one of the earliest symptoms of kidney complication in arteriosclerotic persons. We believe that the high blood pressure found in kidney diseases may be brought in to correlation with the previous state-

ment, by the fact that in such conditions and especially in sclerosis of the kidneys, the adrenals, if examined, are found frequently to be hypertrophied, as was noted by other observers."

It is a singular fact that all those agencies that produce a hypersecretion of the adrenals are the same as are known to be harmful in causing arteriosclerosis.

And, again, excesses in one's mode of living—in the use of alcohol, tobacco, different kinds of poisons as lead and mercury, and some of the infectious diseases, notably syphilis—with abundant meat food, not only produce arteriosclerosis but they are harmful to the thyroid gland, the antagonist of the adrenals.

Lorand concludes: "There exist two chief agencies for the production of arteriosclerosis.

"First—Hyperactivity of the adrenals causing a rise in blood pressure.

"Second—A degeneration of the thyroid gland which, when normal, antagonizes the first by lowering the blood pressure; for each time there is a rise in the blood pressure more blood is forced through the arteries, thereby causing them to dilate; and after repeated dilatations, the elasticity of the vessels will eventually be impaired, especially so in the aged where one part of the elastic fibers is already replaced by connective tissue. As a result of the arteriosclerosis, the passage of blood through the capillaries will be impeded and in consequence the work of the heart will be increased; likewise the nutrition of the vessel walls will be diminished. The best preventives, therefore, will be: First, to avoid all agencies which may tend to cause excessive activity of the adrenals and, second, to increase the activity of the thyroid."

From Dr. Lewellys F. Barker's classical paper on "The Causes and Treatment of the Condition Underlying High Blood Pressure" (address to the Ohio State Medical Association in 1920), I shall quote freely; as also one read in the Tri-State Association in 1921.

Dr. Barker says: "And I dare say that a review of your own experience will, like that of mine, convince you that though we already know a great deal regarding high blood pressure and its causes, our ignorance of the subject is still more impressive than our knowledge.

"The students of normal physiology have investigated the several factors upon which arterial tension depends. They have shown us, as you know, that they include (first) the distensibility of the vessel wall; (second) the

capacity of the vascular system, and (third) the degree of filling of the vessels, the latter depending (a) upon the volume of flow, in turn depending on the action of the left ventricle of the heart, and (b) the degree of resistance encountered, either through the viscosity of the blood or, more important, at the arteriolar barrier in the pre-capillary area. In normal states the changes in the width of the lumina of the arterioles depend upon the tonus maintained in their muscular walls, and this in turn is regulated, partly by a very complex vasomotor nervous system, consisting of the vasoconstrictor and vasodilator nerves of the vegetative nervous system, under the control of peripheral, spinal and bulbar centres; and subject to both pressor and depressor reflex stimulation, partly by direct chemical stimulation of the muscular walls or the nerve endings in them—by materials of endocrine or other metabolic origin."

We might proceed further with the physiological and anatomical aspects of cardiovascular troubles, but the above picture shows the etiology, as far as our present knowledge goes, of the simpler forms of hypertension.

As the general practitioner comes frequently in contact with these disorders, we find that they may be conveniently divided in three classes:

First—Simple Hypertension. We come to these, often accidentally encountered, in routine examinations as for life insurance or secret societies, or our office work, where the blood pressure in middle adult life is found to be 160 or over, systolic. The heart is slightly dilated, the apex beat is forcible, there may be some headache, frequently dizziness or vertigo, there may be no appreciable arteriosclerosis and the renal function may be normal. These patients are often charged with nervousness and neurasthenia and their condition not seriously considered. These we call simple hypertension, so-called hyperpesia.

Second—We come to a stage that we will designate chronic hypertension. In this group of cases the maximal blood pressure may be two hundred or more and the minimal one hundred or more. There is demonstrable hypertrophy of the left ventricle with ringing aortic second sound; the patients may have polyuria, both diurnal and nocturnal. The urine is usually pale and of low specific gravity and contains from time to time a trace of albumin and a few hyaline or granular casts. The patients in this group may or may not complain of troublesome symptoms. Very often

the neurasthenic symptoms referred to in the previous group appear in these patients and the majority of them, too, begin to feel the strain upon the heart muscle, complaining of a little dyspnoea on exertion.

These patients still seem to enjoy robust health. The conditions of at least some of the patients of this group, too, is classed by some clinicians under the designation "hyperpiesis," or essential arterial hypertension, though this designation would doubtless be restricted to the cases without palpable thickening of the peripheral arteries and without obvious renal decompensation.

Third Stage—"Chronic Hypertension with serious complications, cardiac, cerebral and renal." The majority of cases in the preceding groups sooner or later enter this group in which any one of several complications may appear.

Since these complications are often dependent upon an associated arteriosclerotic process, upon an associated renal disease, or upon both, many clinicians of today place all the patients in this group in the category of arteriosclerotic hypertension, or of nephritic hypertension.

Thus, due to a cerebral arteriosclerosis, there may be a sudden cerebral hemorrhage with apoplectic stroke; or, due to a retinal arteriosclerosis, there may be a retinal hemorrhage with amblyopia or scotomata; or, due to an associated coronary sclerosis with insufficient heart muscle, there may be attacks of angina pectoris, cardiac asthma, or of pulmonary oedema; or, due to the impaired nutrition of heart muscle with overwork of the heart in maintaining the chronic arterial hypertension, myocardial insufficiency may set in with all the signs of cardiac decompensation: dilatation of the heart, chronic passive congestion, dyspnoea, enlargement of the liver, oliguria, pronounced albuminuria, oedema of the lower extremities and general anasarca; or, due to associated lesions of the kidneys, renal decompensation of the kidneys may set in (especially in the course of an acute infection or of an associated myocardial insufficiency) and the patient may become uremic, exhibiting the nervous symptoms (convulsions, temporary paralyses, disturbances of vision, twitchings, delirium, coma, headaches), the digestive symptoms (anorexia, nausea, vomiting, hiccoughs, diarrhoea), the cutaneous symptoms (pruritus, exanthems), or the blood findings (increased non-protein nitrogen, increased urea-nitrogen), well known as concomitants of a uremic state.

"Is it not reasonable then, too," says Dr. Barker, "to conclude, that the uremic and renal complications, often terminating fatally, and known by the laity as 'chronic Bright's disease,' together with the dangers of heart failure and of cerebral apoplexy, largely accounts for the present-day dread of high blood pressure that so generally prevails?"

The causes of high blood pressure are many and varied. We have to do with the matter of inheritance; there is no doubt that this condition, or the tendency to it, is transmitted as is the tendency to tuberculosis and cancer. We all know of the apoplectic, the paralytic, the cardiovascular families. The wear and tear of modern business, mental and physical overstrain, especially among business and professional men who have burned the candle at both ends, those leading hard-working and anxious lives, taking insufficient bodily exercise or recreation, and often overindulging the appetites for food, for alcohol, for tobacco, for sexual gratification, for monetary gain or for the possession of power or fame. The human machine is forced to run at such high speed and under such a load that it soon becomes damaged by abuse, and instead of running along smoothly up to seventy or eighty years, it too often has to go to the repair shop at forty or fifty years of age.

High blood pressure may also be caused by focal and general infections. Typhoid fever, influenza, recurring or septic tonsillitis, pyorrhea, sinus infections, gall-bladder infections, prostatitis, diseased ovaries, etc. Syphilis is a frequent cause and certain poisons as lead and mercury. Autointoxications from disorders of digestion and the intestinal tract are frequent causes of troubles. Endocrine disorders are common with hypertensives, and there is some real connection between the function of the thyroid, hypophysis, suprarenals and gonads with high blood pressure. The science of medicine as exemplified by some of the foregoing quotations from eminent men is a beautiful thing to contemplate, but the average practitioner of medicine is frequently confronted with the proposition, What are you going to do about it? It has been said, "All that a man hath will he give for his life." These rich hypertensives would give us doctors millions of dollars if we could guarantee to them the right to continue indulging all the pleasures and luxuries of life safe from the dreaded high blood pressure and other cardiovascular troubles.

If we only had one given cause as we have in malaria, in yellow fever, in syphilis, there is no doubt we would find some therapeutic remedy or some quarantine prevention; but, alas, for the high blood pressure victim, the cause of his trouble is legion and his remedy uncertain. For nearly forty years I have done a fairly large practice, much of it being with our millionaire or tourist class, who flock to the East Coast of Florida for the winter months. Twenty-five per cent of these patients belong to the cardiovascular group; another 25 per cent to the gastrointestinal, and the remainder have all sorts of troubles, largely nervous prostrations and accidents. I have observed that children and young people, and I might say negroes those below forty years of age, suffer but little from cardiovascular troubles, except those caused by infections and focal diseases, such as scarlet fever, tonsillitis, diphtheria, rheumatism, influenza, intestinal parasites, and chilling from undue exposure. So we may pass over the cases of young people with advice simply in the line of prevention. When we come, however, to that great army of hypertensives between the ages of 40 and 65 (for the cardiovascular at 40 seldom live beyond 65), we have our problem as physicians.

In the treatment of cardiovascular troubles (this term to include high blood-pressure cases) a long list of remedies have been tried: Diet, baths, air, light, exercise, rest, recreation, massage, electricity, drugs, vaccines, sera, nursing, dentistry, surgery, glandular extracts, so-called radioactive waters. Certain environmental influences must be included in the remedial list, in which inherited tendencies play their part. Psychotherapy in the broad sense of dispelling fear and calming the patient's nerves, refraining from frequent examinations and creating an atmosphere of hopefulness, all play a remedial part.

The complex symptoms that we are first called upon to treat are found in well-developed cases. Our patients complain of lassitude, headaches, a particular fulness or feeling of bulging in the sides of the head, often with tinnitus aurium and vertigo. They are red-faced generally (though frequent exceptions in pronounced renal cases), are short of breath, heart's action generally accelerated and irregular, frequently unable to sleep in a lying-down position. The feet are frequently swollen, there is pitting about the ankles and puffiness about the face and eyelids. The bowels are sluggish and skin of body often pale

or yellowish. There is insufficient functioning of the kidneys and skin; the urine, generally albuminous, is dark in color and high specific gravity. If these cases go to the head, as we say, they wind up with apoplexy or paralysis and if they go to the kidneys the end is with anasarca, dropsy and uremia.

To lower the blood pressure, to restore the function of diseased organs, should be our chief aim. To this end, as Dr. Barker pertinently advises in the treatment of all diseases, omit nothing that might reasonably benefit the patient. For a long time iodide of potassium, or sodium, has been given systematically; so also have the nitrites and nitroglycerine, digitalis, alkaline salts, mineral oils, high-frequency electrical currents, hot baths, mineral waters, massage, etc.

In the treatment of my cases, I have found iodides disappointing (except in syphilitics), the nitrites generally disappointing, massage disappointing, and mineral waters, if in excess, likely to do harm. We should not drive nature too hard. Where the blood pressure is above 200 (and I have seen it as high as 270) and there is much headache, I have seen much benefit from acetphenetidin or phenacetine used in two or three grain doses, every three or four hours, as indicated. Where the tongue is foul and bowels sluggish, I have used calomel with great benefit and a proprietary laxative saline sold as sal-laxa; this acts well upon the bowels and keeps up elimination both through bowels and kidneys. Where the heart is rapid and pulse bounding (the radials and temporals full), I use a prescription of aconite, digitalis and bromide of soda. This acts beautifully in slowing down the heart and quieting the nervous system. When the kidneys are flagging, I use acetate of potash, with extract of squills, and where there is albuminuria, I use iron oxide with bitartrate of potassium. I find with these simple remedies great relief for my hypertension patients. Where the heart is enormously dilated, long periods of rest with very light diet prolong life and produce comfort; I have abstracted blood from the veins, but with no permanent benefit (venesection may occasionally forestall an apoplexy). The sleep remedies—veronal, trional and this group help a little, but there is danger to the heart. I use morphine only in the worst cases, dyspnoea and cardiospasm; its after-effects are bad. Many times in the pressure of impending death, I have had to resort to large doses of calomel, eleterin, epsom salts, pilocarpine, diuretin and hot baths, and in some few

cases with marked relief, but in my experience there is no specific.

The matter of diet is extremely important, milk and cereals preferable to all other food. Rare meats should be used with caution; chicken, game, fish, and oysters in season are suitable articles of diet. Vegetables and soups from vegetables are good in moderation. I do not subscribe to a diet free of salt. Frequently cases come to my care who have been ordered to a salt-free diet, and I have found them to improve on addition of a little salt to their food.

Now as to prevention. Since the causes of cardiovascular-renal hypertension are many and arising from different sources, and since these diseases and deaths from them are on the increase, and since it is a well-recognized fact that the great majority of these cases are well-to-do adults passed middle life, let us inquire, What is the chief cause and how prevent these troubles?

The American people are prosperous beyond the wildest dreams of our Pilgrim Fathers; along with the acquirement of wealth has come leisure and the desire for luxuries; along with the luxuries have come the thirst for alcohol, tobacco and the indulgencies of all the passions. We have the mad rush for wealth, ambition for the high places in life, yearning for social recognition and the strenuous competition amongst our business men for commercial advantage. The fine mechanism of the human machine does not run along smoothly, as with the simple life, but every function and faculty is keyed up to the highest point of tension. The stomach is overloaded three times a day with rich food and condiments—tuned up in case of the rich with wine and highballs; with the poor with moonshine and ball potash. A full dinner is topped off with desserts rich in sugar, pastries, and wine; and between meals, coffee and tea is generously served to keep up the excitement. No wonder that the overburdened stomach turns into the intestinal canal a mass of undigested food to first congest the absorbents and poison the blood stream, to drive the heart and to overpower the kidneys in nature's effort to adjust itself to its impossible task. Autointoxication, if you please, but gluttony is a better term for these intemperates.

From the blood streams spring the issues of health and life. When the heart is forced, through overwork, to dispose of the poisons in the blood—stimulated by excessive eating, drinking and excitements—we are sure to have irrita-

tion in the walls of the blood vessels, irritation in the brain cells, irritation in the kidney tubules, irritation in the heart muscle leading to dilation of the heart, to interference with the function of the ductless and other glands, setting up high blood pressure and leading on to untimely death.

If temperance is the great law of life, temperance in all things is the surest preventive of hypertension.

If it were possible for us to have children well born and perfect; to bring them up as carefully as we do our thoroughbred animals, and protect them in early life against the wiles of the tempter; if we would teach them hygiene and the simple laws of health and life, and limit them to simple foods and require industrious, sober habits, we would in time greatly lessen the many cardiovascular troubles, lessen the increasing death rate, and raise up a stronger and long-lived race of men and women.

THE HODGEN SPLINT.

R. B. HARKNESS, M. D.,
Lake City, Fla.

In presenting this paper I am making no claim of originality, but simply wish to bring to your attention what I believe to be one of the most useful appliances available to us, in our attendance upon the injured.

This splint is not given the general use that it deserves, because the medical profession is not sufficiently familiar with its practical application. And I shall consider any time well spent that will enable me to more fully acquaint you with the merits of this device.

The Hodgen splint, which is a modification of the Nathan R. Smith anterior splint, was devised by the late Dr. John Hodgen, of Missouri, and was used extensively by him during the Civil War. The splint, as Dr. Hodgen left it, though quite satisfactory in the hands of an expert, was a crude affair, and the honor of perfecting it should be given the late Dr. George S. Brown, of Birmingham, Ala.

The work that Dr. Brown did in perfecting and simplifying this splint conferred a boon of no mean value on suffering humanity, and placed in the hands of the medical profession a device that should rank high among the appliances that make for a satisfactory and efficient service.

The Hodgen splint, as we have it today, consists of a rectangular frame of stout wire, con-

forming roughly to the length and thickness of the average lower limb; canvas, fitted to this frame in such manner that the injured limb rests snugly in a bed or cot. To this is added a suspension apparatus, consisting of four cords, each furnished with a tent block for adjustment, and fastened two on either side of the splint in such manner that the limb may be easily suspended. These cords are hooked on to a draw scale of twenty-five or fifty pounds capacity, and this, in turn, fastened to the main suspension cord, which is also furnished with a tent block for adjustment and runs through a pulley fastened into the ceiling of the room, or to a suitable frame erected over the bed, for suspension.

Fixation of the limb in the splint is secured by application of the ordinary traction straps of adhesive to the leg, and lower part of the thigh, if desirable. The leg should be shaved and the skin cleaned well before these straps are applied. These straps are fastened to the lower end of the rigid frame, thus securely fastening the limb to the splint, and now any amount of traction may be secured by regulating the angle made by the main suspension cord, in deviating from the perpendicular. It is a good idea to first allow this cord to hang at the perpendicular, register the weight of the suspended limb, now resting in the canvas cot, and then to secure such traction as is deemed sufficient. It is best to increase the traction gradually up to the desired point; this is done simply by raising the limb, or by pushing the bed back a little. The fixed pulley should be about ten feet above the bed, in order to give the patient as much freedom of movement as possible.

To keep the sides of the splint from pressing in on the limb, a loop of wire of the same thickness as the rest of the splint is hooked into the short loops that are turned up at the ends of the wires, forming the sides of the splint. This loop arches across the base of the thigh and may be made to conform to the thickness of the thigh by being bent, bringing the sides of the splint closer together, or further apart, as may be indicated.

In applying the splint, it is bent at the knee level to any desirable angle, thus securing the principle of the double incline plane. This angle may be increased or decreased, to suit the fancy of the attending surgeon or the needs of the individual case.

This splint, while devised particularly for the treatment of fractures of the femur, may fre-

quently be applied with a high degree of satisfaction in fractures of the leg, particularly compound fractures.

The advantages claimed for The Hodgen splint are:

First—Its simplicity and the ease with which adjustments may be made.

Second—The fact that the injury is at all times open to inspection.

Third—The injury may be submitted to fluoroscopic or radiographic examination, at the pleasure of the surgeon, without disturbing the dressing.

Fourth—The fact that in doing dressings in the treatment of compound injuries the necessity for several assistants is entirely eliminated.

Fifth—The fact that this splint gives to the patient the greatest possible liberty of movement and comfort.

PYORRHEA.*

A. B. WHITMAN, D. D. S.,
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It is a great pleasure and a privilege to be permitted to address you.

I am not speaking as an expert on the treatment of pyorrhea, but only on some phases of its connection with systemic infection.

In the dental literature of the past few years, more has been written on this disease than perhaps any other subject. This is due to the recent interest aroused owing to the relation of the disease to the health, to its often obscure causes, to its elusive, uncertain nature as to diagnosis, prognosis and treatment.

There is still doubt as to whether an advanced case is often cured in the way that it may not still be a menace to the patient's health. There is no doubt that many cases can be successfully concealed by operative work on the teeth and adjoining structures and by medication.

The disease is an uncertain and elusive one to the patient because the condition is seldom realized until it has progressed to such an extent that its cure is uncertain.

In some few cases a painful condition may develop in the early stages. There may be an acute inflammation of the soft tissues. The teeth may become sensitive and painful. Some few patients will notice an odor or taste, but usually are not conscious of anything wrong until the

case is more or less hopeless as far as saving all of the teeth permanently is concerned.

The early stages may be easily overlooked by many dentists in making the still very customary free dental examination, or in cleaning the teeth, frequently a very superficial operation, removing visible tartar and stain only and not exploring under the edges of the gums at all.

The disease is an uncertain, elusive one for the dentist, because it is hard to tell whether a given case is affecting the patient's health or not; it is uncertain whether it can be cured without extracting the teeth, or whether, if apparently cured, it might not still endanger the patient's health.

While it is often said that a large per cent of people over thirty-five years of age have pyorrhea in some form, this means very slight, no infection being present.

It is my estimate that of people who have reached middle life perhaps 8 or 10 per cent have pyorrhea or periodontoclasia in some form developed to a sufficient extent to affect their health.

Will endeavor to direct your attention to a few definite facts only, which may be of aid in making a diagnosis in cases where the patient's health is suffering and evidence of the existence of a focus of infection is noted.

First, a few definitions as to types and stages. I will not mention the various types of gingivitis or the early stages of periodontoclasia, as infection is seldom present.

Periodontoclasia: As its name implies, is a destructive degeneration of the tissues surrounding the roots of teeth.

The area of destruction is usually filled with granulation tissue, the portions of the roots of the teeth in this area may be covered with rough, dark serumial tartar.

Infection is usually present. The granulation tissue is about the same as that found in an abscess cavity at the root apex of a dead tooth, where there is a focus of infection. This condition is very common and is very easily overlooked.

Pyorrhea Alveolaris: In a true case of this disease there must be one or more teeth showing the following symptoms: Alteration of the color of the gum from normal pink, pocket formation under the gum beside the tooth root with a purulent discharge, destruction of the alveola process, formation of granulation tissue in its

*Read before the Florida Midland Medical Society, at Sanford, April, 1923.

place, loosening of the teeth. Infection nearly always present. This condition is easily recognized.

The cure of this last condition is so uncertain that, for the class of patients we are considering, extraction is nearly always indicated. Just as a prophylactic step, with a view of eliminating a dangerous element and a factor in disturbed metabolism, it is eminently desirable.

In cases deeply affected, extraction should be followed by thorough curettment of necrosed bone and removal of all granulation tissue. It is the accepted practice to only remove a few teeth at a time, but to thoroughly clean up each section. The gum should be retracted, the rough, sharp edges of more or less necrosed bone clipped off, leaving a somewhat smooth surface and giving access for removal of deep-seated granulation tissue and curettment of necrosed bone. There is no objection to this style of operating, except that it is some work, requires some skill and an aseptic technic.

There is no additional after-pain, recovery is quicker, and the mouth is left in the best condition for artificial dentures. To merely extract these teeth is leaving a lot for nature to do, to eliminate all of this tough granuloma, perhaps deeply located in more or less necrosed bony sockets.

There is a pronounced tendency for the gums to heal over in a few days, in which case the affected area can only be removed by absorption.

Of course there are many cases where the simple extraction of the affected teeth is all that is indicated. I should say that such a case might be where the alveolus has been nearly all destroyed and the gums receded, as in such a case there may be but little affected bone left and any other pathologic tissue is near the surface.

Remaining pathologic conditions have without doubt been responsible for the continuation of disturbances in many cases in which, after tooth extraction, improvement was anticipated. This has caused a question in the minds of some medical men as to the validity of the focal infection theory, for they did not realize that extraction alone might not accomplish the elimination of the infection.

There seems to have been in the minds of some medical men the idea that the removal of an infected tooth may be followed by a flow of pus, or that pus may be visible, but in most cases where the removal of jaw infections has been of distinct benefit to the patient, no pus was visible,

but only the tough, dark, purplish red granulation tissue in partly necrosed, discolored, bony sockets, before referred to. This applies to apical abscesses as revealed by the X-ray picture as well as to periodontal infections. These granuloma, except in acute stages, are not filled with visible pus.

Cases of suspected periodontoclasia deserve the most careful examination. There may be little to indicate its existence. The gums may look nearly normal, in color may be pale pink, purplish or bluish pink or dark red. They may be neither receded or hypertrophied to any extent and may appear to hug the necks of the teeth closely. The teeth may be clean if the patient is careful of the mouth.

If there is a history of irritated, bleeding gums, which condition was greatly improved by frequent cleaning and medication by the dentist, it may be that the disease has been successfully concealed, but unless it has had the attention of a skilled periodontist, very likely some of the deep infection remains.

X-ray pictures will show, at least partially, where the bone between the teeth or alongside of the roots has been destroyed, forming pockets likely to be filled with granulation tissue.

If the pocket extends nearly to the end of the root, the tooth should be condemned; if only half way to the end of the root, the condition may be successfully treated and any infection removed. If the picture shows a dark spot where the bone has been destroyed in the fork between the roots of a molar tooth, the tooth should be condemned, as this spot will be likely to continue to harbor infection in spite of all treatment.

Careful probing will disclose much, but is probably not practical for the average physician. Transillumination should be good in the hands of the medical man as not requiring any acquired manipulative ability, only a practised eye. The infected area or tooth roots will show more or less dark and cloudy as compared with the clear pink of the normal structures. However, if the jaw is very thick or of dense structure, unless the light is very strong, infected areas may not be noticed, but wherever you see a dark area by this method there is likely to be infection.

The various types classed as periodontoclasia are in many cases curable, if the pockets are not too deep or the teeth too much loosened. With delicate curetts, files and other instruments, the affected portion of the root is scraped clean of tartar, dead periodontal membrane and softened

tooth structure and must be left perfectly smooth. The work must extend to the deepest parts of the affected area. The granulation tissue is removed and the bone curetted, leaving only healthy bone.

When healed, the gums will be more or less receded, even exposing a large part of the tooth roots, but the teeth may still be comfortable, useful and healthy. In but few cases will much bone be regenerated. Therefore, unless the gum recedes, the pocket remains with the likelihood of infection.

It is evident that this work requires a high degree of skill and a developed delicate sense of touch for its success, except perhaps in the case of easily accessible teeth where the pockets are not deep. Therefore, if the patient's health is suffering, do not try to save molars and seldom bicuspsids, if deeply affected.

A recent medical writer describing the examination for infection in cases of rheumatism, says: "Examine the mouth thoroughly and do not take the dentist's word for it. Scrap all crown and bridge work, eliminate anything suspicious of pyorrhea, all old stoped teeth should come out. If a tooth is suspected, extract; remove the teeth and the gums will take care of themselves."

The mistake here is that many harmless teeth will be removed and real infections overlooked. A tooth is not infected because the filling is old and black, a gold crown may be placed on a perfectly healthy tooth owing to defective enamel or as a reliable support for bridge work. Probably this writer might overlook well-matched porcelain crowns; they may be very natural looking, but are usually mounted on dead roots and very likely to be infected. He would hardly notice the very common type of periodontoclasia, harboring granulation tissue.

I must admit, however, the writer's estimate of the average dentist's dependability for passing on these cases is correct.

Why is this? Even the average dentist should be well fitted to determine the existence of infection of the mouth or jaws.

Partly tradition. The great aim of dentistry of a few years ago was to save the teeth, and with many dentists this tendency still persists, regardless of conditions. Partly, also with some who still give the free dental examination, with the idea of charging only for work if needed and he can so plan it as to make a large showing with a moderate amount of labor.

To accomplish this, he may want to retain one

or more somewhat infected or suspicious teeth which may be difficult to extract, and if lost may mean much more work in constructing artificial teeth to replace those lost, and the artificial restoration may not be nearly as satisfactory to the patient if the suspicious tooth or teeth are removed. For instance, a dead cuspid in fair condition or a second molar with poorly filled roots may serve admirably as abutments for a fixed or removable bridge or the retention of a small partial plate.

Patients, owing to the old-time custom, are much inclined to get prices or estimates for their work, including the extracting and restoration. Some will compare prices with others who have had seemingly similar work done. Others will go around to other dentists getting prices.

I have never heard of a patient inquiring about a dentist ask if his work in eliminating infection is thorough. They ask, does he hurt, did his work suit you, are his prices reasonable.

A great trouble with the average dentist is fear. Afraid of the other dentist, afraid of losing a patient.

The other dentist may quote prices on the basis of leaving these suspicious teeth. The patient does not know the difference, the medical man may never find out.

The patient will not judge the dentist by whether or not he gets well. Probably the medical man will be held accountable for this. The dentist will be judged by the trouble and inconvenience the patient is put to and by whether the artificial teeth are satisfactory.

Therefore, when you refer your patients suffering from the effects of infection to a dentist, do not select one only because he is a good friend of yours and popular with the public, but choose one who has the courage to do what he knows is best for the patient, even if he does have to put the patient to more inconvenience than the other man might.

Another idea, quoted from the medical writer: "If the teeth are removed, the gums will take care of themselves." It is true that they will in many cases and that they will usually heal over quickly and seem all right, and X-ray pictures may not show anything definite particularly in the upper jaw, or if a porous or necrosed area is noted in the picture it may be hard to locate exactly in the mouth. In cases of deep-seated apical abscesses or periodontal infections, such areas may remain in spite of, or perhaps because of, quick healing of the gum.

At the Mayo clinic, during the year 1922, some twenty-four thousand patients were examined in the dental department. If I remember right, upwards of 20 per cent of those examined were operated for the removal of mouth infections.

A large number of those operated on were cases which the operators speak of as being worked over, that is, their teeth at some time before had been X-rayed and infected ones removed. Some were edentulous, but full-mouth pictures were taken of those examined without exception, and small root tips, difficult to remove, and infected areas in the bone were found and eliminated by radical operations. By this I mean cutting out a section of the bone, including the infected root or area, leaving only sound bone. The soft parts are then replaced and held by a single stitch. There will be little after-trouble and parts are left in the best possible condition for artificial teeth.

By such methods, after careful diagnosis and due consideration, we should have few cases where useful and comfortable teeth are sacrificed without beneficial results.

The Mayos have been doing this for several years and are doing more and more all of the time.

There should be dentists in every town fitted to do this work. While it requires asptic conditions not found in the average dental office and some surgical ability, any skillful dentist can fit himself to do it.

PHYSICIAN SUMMONED BY RADIO.

The steamship *West Cahous*, lying at anchor in Baltimore harbor, about nine miles from the city, needed medical help at about 3 a. m. recently and needed it quickly, says the U. S. Public Health Service. A member of the crew had fallen into the hold and had hurt himself seriously. So the captain of the ship sent a wireless broadcast asking help.

The call was picked up, not in Baltimore, nine miles away, but at Cape May, N. J., about 100 miles due east of Baltimore. As Cape May was separated from the *West Cahous* by parts of New Jersey and Delaware and by the eastern shore of Maryland, not to mention Delaware and Chesapeake bays, no direct help from it was possible.

But the operator was on the job. Promptly he consulted the long distance list in the Baltimore telephone directory and called up the residence of the Public Health Service surgeon in charge of the Marine Hospital in Baltimore—100 miles

GEORGE DELOS KENNEDY

1881—1923

The members of the Duval County Medical Society were greatly shocked to learn of the sudden death of Dr. George D. Kennedy.

Dr. Kennedy was a graduate of the Michigan School of Medicine and Surgery, Detroit, 1904.

He had practiced for many years in Mandarin and Jacksonville and was a staunch supporter of organized medicine. In addition to membership in his county and state society, he was a member of the Southern Medical Association and a Fellow of the American Medical Association.

to the west. The surgeon, roused from sleep to receive the message, asked him to radio certain emergency treatment to the *West Cahous* and to direct the captain to send a boat to a certain pier in Baltimore, where he would find a surgeon waiting to go out to the ship with him. And so, in the middle of the night, in less than an hour, a wireless-controlled sea-going ambulance carrying a Public Health Service officer reached the side of the injured sailor and brought him later to the hospital.

PROPAGANDA FOR REFORM.

PEPTONE IN THE TREATMENT OF MIGRAINE.—

The Council on Pharmacy and Chemistry publishes a preliminary report on the experimental status of the use of peptone in the treatment of migraine. Drs. Joseph L. Miller and B. O. Raulerston report that the intravenous administration of *Peptonum Siccum-Armour* brought about improvement in a considerable number of cases. The council points out that commercial peptones are heterogenous mixtures of uncertain composition, and that the results reported may have been due to tissue impurities rather than to peptone itself. It is, therefore, evident that the reported results cannot be made the basis for a rational treatment of migraine. *Peptonum Siccum* is stated by *Armour & Co.* to contain 90 per cent of protein. Seventy per cent of the protein content is in the form of peptone and secondary proteoses, while the remaining 30 per cent is in the form of amino-acids. Those who wish to make experiments with peptone in the treatment of migraine should use the particular peptone used by Miller and Raulerston or one which has an essentially similar composition. (*Jour. A. M. A.*, June 30, 1923, page 1910.)

STEPHEN R. MALLORY KENNEDY, M.D.
1878—1923.

Mallory Kennedy is dead. These were the sad words that passed from lip to lip among members of the medical profession of the state of Florida on July 11, 1923. Few members of the profession have been loved more than was Mallory Kennedy. None will have a monument of endearment greater in the memories of those who were fortunate enough to be numbered among his friends. The very circumstances under which he lived and carried on with strength of mind and wonderful fortitude were such as to inspire admiration. For many years afflicted with a "heart block," he knew that any day might be the last. Still he led a near-energetic and a most useful life. A handicap that would render many of us useless members of society seemingly held no fears for him.

A man of keen wit, a peer among entertainers and a Prince of Good Fellows — one of Nature's Noblemen, these will be our remembrances of the character of this brave and courageous man.

Dr. Stephen R. Mallory Kennedy was born in New Orleans on November 24, 1878. He received his preliminary education in New Orleans, later entering the Roanoke College of Virginia. He received his degree in medicine from Tulane University in 1903, and became associated with the Louisiana State Board of Health, but shortly moved to Pensacola and entered the United States Public Health Service. His first assignment was as Medical

Officer in charge of the United States Marine Hospital at Pensacola where he remained until 1917. In May of that year he was commissioned a Captain in the Medical Corps of the United States Army, arriving in France in June, 1917. He was loaned by the United States authorities to the British government almost immediately and served during the early

and strenuous days of the western front activities. For his service with the British Army he was awarded the decoration of the British Military Cross. He was caught in a severe gas attack which resulted in his being invalided home to the United States. Dr. Kennedy later received an assignment to duty at Camp Joseph E. Johnston, Jacksonville. He returned to his pre-war duties with the United States Public Health Service in Pensacola early in 1919. During 1920 bubonic plague appeared in Pensacola, Dr. Kennedy being

highly commended by his superiors for the manner in which he met and dealt with an extremely grave public health problem.

At the forty-eighth annual meeting of the Florida Medical Association held in Pensacola during May, 1921, Dr. Kennedy was unanimously elected president of the association.

Besides his host of friends in the medical profession and among the laity, Dr. Kennedy leaves a devoted wife and a loving son to mourn his loss. *Requiescat in pace.*



The Journal of the Florida Medical Association

Owned and published by the Florida Medical Association.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of Congress of October 3, 1917; authorized October 16, 1918.

Published monthly at St. Augustine and Jacksonville. Price \$3.00 per year; 30 cents per single number.

Contributions for publication in this journal, whether scientific papers or reports of County Secretaries, should be typewritten.

Address Journal of the Florida Medical Association, St. Augustine, Florida, or 201-202 St. James Building, Jacksonville, Fla.

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OUR LATE PRESIDENT.

With the death of Warren G. Harding, a terrible loss to the country and entire world, Florida suffers and bows her head in grief and deepest sorrow.

It was to Florida Mr. Harding wended his way in seeking pleasure, freedom and relaxation from the cares and burdens of his great office. It was as the man, the typical and generally loved American citizen, that Warren Harding was best known to Florida, rather than the statesman high in the councils of his country for many years and for the last two years of his life Chief Executive of the American Government.

Comments of the press throughout the country give manifest indication of the wonderful hold this American had on the hearts of his fellow countrymen—regardless of political affiliations.

Warren G. Harding was truly loved by all America, but no section of this great country loved him better than Florida.

FLORIDA AND RECIPROCITY.

It becomes more and more evident each year that the medical profession of Florida should be wide awake concerning the matter of the Florida State Board of Medical Examiners granting applicants' license to practice medicine through reciprocity with other states. Few will deny that reciprocity with Florida would mean much to physicians already licensed to practice in other states, but that other states have little to offer Florida medical men in return. During the last session of the legislature in Tallahassee, interested parties* succeeded in passing, in the lower house, a bill that made it compulsory for our Board of Medical Examiners to grant license upon their application to all graduates of Class A schools who had been granted a license, through examination, by any other state in the Union. The bill died on the calendar of the upper house. It was only during the closing days of the 1923 session of the legislature that knowledge was obtained concerning the proposed bill. It is very easy to see how in the hands of interested parties and in the absence of objection or opposition such a bill might have passed both houses during the busy closing hours of the legislature. Under such conditions passage by unanimous consent might not be hard to secure.

Florida cannot now and never will be able to

countenance license by reciprocity. The leaders of our profession throughout the state are a unit on the question. THE JOURNAL believes, however, that we should clearly show our sister states that our stand is taken in the interests of the general public rather than from selfish motives. The whole trend of medical legislation throughout the entire country for the past decade and longer has been to demand of those who wish to follow the practice of medicine as a life career, educational qualifications that would justify the granting of license by the state body. In only this manner can the state protect the public from the charlatan, the quack and men of mediocre or no ability.

We should also make it plain that, while we cannot harbor the snow birds that would feed with us during the winter months, we adopt a liberal attitude toward medical men, as Florida does to all men, who wish to make the state their bona fide home. We have no desire to adopt a selfish attitude toward those who have the necessary educational requirements to qualify under our medical laws. We would emphasize that men who can qualify by examination to practice medicine in our sister states will have no trouble in meeting our requirements on the same basis.

To reiterate — Florida will never stand for license by reciprocity, she will at all times welcome the bona fide citizen, the graduate of a reputable school armed with the necessary educational qualifications. Florida cannot afford to license by reciprocity the thousands of men broken in health, possibly with mediocre qualifications, graduates of thirty and forty years ago, unable longer to stand the strain of practice in the rigorous winter climates of other portions of the United States, who simply wish to come to Florida for a few months each winter, with the object of "doing a little work," which in too many instances would subject our citizens to discarded methods and riddle our smaller towns with disqualified, uneducated and old worn-out physicians.

RECENT PHYSIOLOGIC FINDINGS REGARDING INSULIN.

As could be expected, the almost dramatic clinical results that have attended the introduction of insulin into the therapy of diabetes have focused attention in many places on the nature of this uniquely potent product. The search for

the substance to which the therapeutically active products owe their efficacy ought to be, and assuredly will be, pursued assiduously by scientific talent until some reward is secured in the discovery of the actual hormone. Thus, the history of research which led to the isolation of epinephrin and thyroxin is likely to repeat itself, whereupon the organic chemist will find a stimulus to further labors in the direction of artificial synthesis. It would, indeed, be a fortunate and happy circumstance if the approaching centennial of the first artificial synthesis of a substance, urea, earlier assumed to owe its origin to the inimitable "vital" activity of living tissues, could be made to encompass the synthetic production of a number of the recognized physiologically potent hormones which have baffled the chemical investigator.

Meanwhile, the enthusiasm for helpful clinical therapy must not be allowed to overshadow entirely the pressing need of further fundamental investigations on the genesis of diabetes, the origin of insulin, the variations in its production in the body, and the mode of its action. Insulin therapy, as shown by the clinical articles appearing in this issue, is essentially a palliative. The underlying defect in the organisms that fails to burn its sugar probably remains to be discovered. The patient prosecution of the problem of diabetic pathogenesis must not be obscured by the remedial blessing.

Attention may well be called, in this connection, to the researches of Murlin and his collaborators¹ at the university at Rochester, N. Y. These show that, through perfusion of the surviving pancreas, solutions can be obtained which promptly raise the respiratory quotient of diabetic animals. As this is clear evidence of actual combustion of sugar in the body, it becomes an excellent criterion of relief from the diabetic condition.

Insulin-containing extracts have already been secured from a considerable variety of sources, including various vegetable products; at any rate, the extracts have been found to affect the level of the blood sugar after they are introduced into the living body. The Rochester experiments duplicate, in a sense, the process by which the blood may normally acquire its supply of insulin from the pancreas. According to them, insulin is extracted by perfusion of the pancreas with acidulated Ringer's solution more readily than with the same fluid made slightly alkaline. Another feature with respect to the behavior of

insulin has recently been elucidated by E. C. Noble and J. J. R. MacLeod.² It has become well known to all who have worked with the hormone that overdosage leads to serious symptoms associated with the consequent hypoglycemia. The symptoms give the impression that some substance having a highly irritative influence on the central nervous system has become developed. As Noble and MacLeod remark, it can scarcely be the case that this stimulus is afforded by a lowered percentage of glucose in the blood *per se*. It is more likely either that the hypoglycemia is related to the setting free of some toxic metabolic product which in the normal animal is directly or indirectly antidoted by a certain concentration of glucose, or that it causes some change in the chemical or physicochemical equilibrium within the cells, which results in a disturbance of their normal functions. One of the ways by which light can be thrown on this question is to see whether sugars other than glucose have the power to remove the symptoms. If a given sugar fails to have this effect, evidence is afforded not only that it cannot itself act like glucose, but also that it is not converted, to any considerable extent at least, into glucose in the animal body. The latest studies from Toronto show that the only sugar which can definitely antidote the symptoms that accompany the hypoglycemia due to insulin is glucose. Levulose, galactose and maltose may be followed by temporary slight improvement in the symptoms, and they cause a marked increase in the blood sugar. Arabinose, xylose, sucrose and lactose have no apparent effect on the symptoms, although there may be an increase in the reducing power of the blood. Glycerol and alkalis have no effect on the symptoms. Rational insulin therapy must now be placed on the safe basis of profound physiologic studies in which every detail of the reactions of the hormone has been carefully considered. Then, indeed, it will not be too much to expect even greater advances in the therapy of the abnormal metabolism of the carbohydrates.—*Jour. A. M. A.*

1. The Influence of Neutral or Alkaline Perfusates on the Respiratory of the Antidiabetic Substance (Insulin) by Perfusion of the Pancreas, Metabolism of Depancreatized Animals, *Am. J. Physiol.* 44:330 (April) 1923. Murlin, J. R.; Clough, H. D.; Gibbs, C. B. F., and Stone, N. C.: Extraction of the Antidiabetic Substance (Insulin) by Perfusion of the Pancreas, II, Influence of Acid Perfusates upon the Blood Sugar, D:N Ratio and Respiratory Metabolism of Depancreatized Dogs, *ibid.* p. 348.

2. Noble, E. C., and MacLeod, J. J. R.: The Influence of Sugars and Other Substances on the Toxic Effects of Insulin, *Am. J. Physiol.* 44:547 (May) 1923.

THE CONTROL OF VENEREAL DISEASE.

Although numerous panaceas for the prevention and control of venereal disease have been suggested, none seem to have sufficient virtue to warrant general acceptance. During the war, committees were appointed by practically every military medical service, and various methods were tried on a large scale, but the methods applicable under military conditions, with perfect control, are not generally adapted to civilian life in which the individual has freedom.

About a year ago, the minister of health of Great Britain appointed a representative committee to inquire into certain aspects of the problem, particularly with a view to answering two questions: (1) What, in the present state of knowledge, are the most efficient medical measures for preventing these diseases, and (2) How far is it ethically justifiable to apply such measures? The committee has considered not only the medical measures involved but also the social aspects of venereal disease control; it felt that no purely medical measures could be successful in controlling these diseases. It held that the extension of knowledge as to the nature of the diseases and their consequences is of first importance. The community should be made to appreciate that:

(a) Promiscuous intercourse is the main cause of the prevalence of venereal disease.

(b) There is no absolute preventive except continence, and a single exposure may result in infection.

(c) A large number of the sufferers from venereal disease are innocent persons, especially women and children.

(d) Syphilis is a disease of great gravity, which, if not treated in its early stages, may have serious results, including affections of the circulatory system and of the nervous system, as, for example, general paralysis of the insane.

(e) Syphilis is transmissible by a mother to her children, and is a frequent cause of miscarriages, stillbirths, and deaths in early infancy, and, in children who survive, of mutilating deformities, deafness, blindness, mental disease and other defects.

(f) Gonorrhea is a more serious disease than is commonly believed, and, if not promptly treated, may have serious after-consequences.

(g) Gonorrhea is a frequent cause of sterility and serious pelvic disease in women, and a cause of blindness in children born of women suffering from gonorrhea.

(h) The presence of these diseases in the community is a menace to the maintenance and advancement of the physical and intellectual standard of the race.

The medical measures seem to fall into two categories: those for preventing disease in persons exposed to infection and those for rendering

noninfective and curing persons already diseased. The British committee was in thorough agreement with investigations made elsewhere to the effect that the chance of failure for disinfection increases rapidly as the interval between the exposure and the application of the disinfectant lengthens. Disinfection within an hour, it is said, is generally successful. It was agreed that it is extremely difficult for a woman to disinfect herself, and that the prospects of success of disinfection in the case of a woman are greatly less than in the case of a man. After a thorough consideration of all the evidence available as to the value of disinfection, the committee concluded that the community in which there has been efficient instruction, and in which such control and influences as have been mentioned obtain, may reasonably expect substantial results from prophylactic measures, although the actual results are often less favorable than has been claimed. The committee was especially insistent on the belief that there is no justification for putting obstacles in the way of individuals who desire to procure the necessary disinfectants, but added that the laws should be altered so as to permit a properly qualified pharmacist to sell such disinfectants in a form approved and with instructions for use approved by some competent authority. It added further its belief that the commercial advertisement of such disinfectants should be prohibited.

Instruction by competent physicians in charge of clinics was considered to be the best method for teaching the prevention of infection, and the committee agreed that money spent on a general system of providing facilities for self-disinfection would certainly be less profitable than money spent either on the treatment of disease or on those measures of education and improvement of social conditions referred to in the list already quoted.

The committee's opinion as to the treatment of venereal disease is enlightening, in view of similar observations which have been made in this country. "Speaking generally," says the report, "the general medical practitioner is not yet adequately equipped with the most advanced knowledge of venereal diseases and their treatment to enable him to deal competently with all the cases that come before him, and an improvement in medical education in regard to venereal disease is necessary." Further, the work of existing venereal disease clinics is of high value, and the system

is one that ought to be encouraged, extended and improved. In this connection the committee points out that discontinuance of treatment is not so common as the general discussions seem to indicate, and that secrecy is highly desirable if patients are to be induced to attend the clinics and to continue treatment. "In the present state of public opinion," says the report, "any system of general compulsory notification of venereal disease would tend to concealment and would prove a backward step." The survey also led to the belief that the venereal diseases are declining at a substantial rate, as they were before the war, and that increased attention along the lines indicated will result in a still greater diminution of such cases.—*Jour. A. M. A.*

COUNTY SOCIETY NEWS.

[IS YOUR COUNTY SOCIETY REPRESENTED IN THIS COLUMN? IF NOT, THE RESPONSIBILITY RESTS WITH YOUR SECRETARY. THE JOURNAL FURNISHES HIM EACH MONTH WITH PAPER AND A SELF-ADDRESSED STAMPED RETURN ENVELOPE. SEE HIM ABOUT IT.—Ed.]

COLUMBIA.

The Columbia County Medical Society has worked out a scheme of holding two meetings per month and by combining with the staff of the U. S. Veterans' Hospital No. 63, of Lake City, is enjoying a number of most instructive gatherings. At each meeting there are two clinical cases or case histories presented: one by a representative of the government institution and one by a civilian practitioner. The whole case history is gone over together with the laboratory and X-ray findings, treatment and outcome of the case. At the close a general discussion is indulged in and points of especial interest are developed. It is the intention of the physicians enjoying the privilege of these meetings to invite from time to time physicians from the surrounding territory to attend these meetings.

Dr. L. M. Anderson, of Lake City, recently attended the session of the Rotary International at St. Louis where he made quite a hit with his "silk Palm Beach" suit.

Dr. W. M. Ives, of Lake City, is spending the month of July in Boston attending the pediatric seminar at the Harvard Medical School. During August Dr. and Mrs. Ives will visit friends in Maine and later will be the guest of Cadet Mackey Ives at the U. S. Military Academy, West Point.

DADE.

There has been great activity around the Miami City Hospital the past few months, including the completion of the nurses' home, accommodating thirty nurses; a new building containing private rooms, a maternity ward, delivery room and nursery. Another unit recently completed is the isolation building containing fourteen rooms for patients, two nurses' rooms and preparation and dressing rooms. The new surgical unit is being equipped at the present time, and will be opened within a couple of weeks. This building contains two operating rooms, emergency room, bacteriological and pathological laboratory, X-ray laboratory, physicians' shower and preparation rooms, offices and morgue.

Bonds for \$100,000 have been voted by the city for another building for wards. A laundry, power plant and permanent corridors uniting the various units will then be built.

The present plant contains beds for one hundred patients, and is standardized according to the rules of the American College of Surgeons.

The following physicians have recently located here:

Dr. J. A. Simmons, from Arcadia, Fla.

Dr. M. J. Flipse, formerly of Cincinnati, University of Cincinnati, 1921, is associated with Dr. A. G. Holmes.

Dr. H. H. Hopkins, Harvard Medical, 1922, has located in the First National Bank Building.

Dr. L. J. Page, of Dublin, Ga., Emory, 1916, has located here.

Dr. A. H. Palmer is looking for an office.

Dr. J. S. McKenzie, of Cordele, Ga., has located at Lemon City.

DUVAL.

The regular meeting of the Duval County Medical Society was held in the Seminole Hotel July 3, 1923, with a fair attendance. Dr. B. L. Arms read a paper on "The Control of Diphtheria," and Dr. R. M. Baker presented a clinical case with "An Obscure Syphilitic Condition of the Liver." Drs. O. V. Burnett and C. W. Johnston were elected to membership in the society. Dr. Frederick Bowen, who has been out of the city for the past few months because of ill health, has recovered and will return during August.

It is with sincere regret that we report the sudden death of one of our beloved and loyal members, Dr. Geo. D. Kennedy, of Mandarin.

As a result of a recent state law the Duval County Board of Charities and the Duval County Tuberculosis Association have become merged

and are now known as the Duval County Welfare Board. The new hospital, designed for the care of tubercular patients, is being enlarged and will be equipped to care for all classes of indigent patients of Duval county. It is the impression of many throughout the state that our local county hospital will treat charity patients from any other county. Under this erroneous idea many patients are sent to Jacksonville each year at a needless expense, and are either returned to their homes, or cared for by some local charity organization. One of the greatest needs of our state at the present is a large charity hospital supported by state taxation.

HILLSBOROUGH.

Dr. J. B. Farrior has been elected chairman of the Bureau of Public Health and Hospitals of the Tampa Board of Trade, and is also a member of the Board of Governors of that body. Dr. Farrior is a worker and the Medical Society, 60 per cent of whom are Board of Trade members, are giving him their support in every way.

Dr. C. A. Andrews is in Chicago doing special work in dermatology, and expects to be away about four months.

The Hillsborough County Medical Society held their annual picnic on July 12th, at Lake Stempier, north of Tampa, on the Lutz road. The physicians, their wives, children and friends to the number of one hundred and fifty were present, and every one reported a most enjoyable time.

Fishing, boating, bathing and dancing were among the amusements enjoyed.

Music was furnished by a five-piece orchestra and the final dances included an old-fashioned square dance.

The lunch, served from long tables, cafeteria style, was of wide variety, plentiful, and tasty beyond description, and no one presented any indications of having had a restricted diet to follow.

Arrangements for the entire affair were in the hands of a committee of five ladies, Mesdames Adamson, Marney, Efrid, Mitchell and Dickinson, and a rousing vote of thanks was tendered them for their efforts in making this affair an unqualified success.

Dr. A. J. Grimaldi is taking a year's post work at the New York Eye and Ear Hospital.

Dr. Blackburn Lowry will soon open offices in the Citrus Exchange building, Tampa, and will confine his work to eye, ear, nose and throat. Dr. Lowry was formerly connected with the American College of Surgeons in Chicago.

MANATEE.

Friday evening, July the 27th, the Manatee County Medical Association will give a banquet to the Sarasota County Medical Association at the Bradentown Golf and Country Club.

ORANGE.

Dr. C. A. Coffin, of Winter Park, is spending the summer on his mountain farm at Bats Cave, N. C.

At the July meeting of the society, Dr. Gwynn gave a most interesting paper on the "Intravenous Use of Hexamethylenamin and Chronic Urethritis" and Dr. Puleston, of Sanford, on the "Greatest Weakness of the Medical Profession."

A committee was appointed to take under advisement the formulating of some plan, both locally and state-wide, for a more systematic education of the public regarding various methods and systems of treatment.

Dr. Denton is spending the month of August at Daytona Beach, Florida.

PINELLAS.

The contract has been let for a seventy-five-thousand-dollar addition to the Mound Park (city) Hospital. Construction has been completed and the furnishing is now being done of the new Mercy (colored) Hospital in St. Petersburg.

Dr. L. Lambdin and Dr. Harry Welch, of St. Petersburg, are absent on a six-months vacation and postgraduate trip to England.

Dr. R. H. Knowlton is working with Dr. Frederick Allen at the Psychiatric Institute in Morristown. Dr. O. M. Knox recently returned from a six-weeks course in the children's clinics in Chicago.

Dr. H. W. Wade has entirely recovered following the removal of a kidney stone.

Dr. R. D. Murphy is in New York for three months' work in laryngology and otology.

POLK.

Dr. R. H. Moody, of Winter Haven, is spending a month in Alabama. His family is with him.

Dr. S. A. Lindsey, of Ft. Meade, and Miss Irene Hammett were married on July 18th.

Dr. M. L. Crum has moved from Ft. Meade to Arcadia to enter practice.

MALARIA AND THE RAILROADS.

Among diseases, malaria is of great economic importance to the agricultural and industrial de-

velopment of the South, says the United States Public Health Service at Washington, in a bulletin just issued in which is set forth the results of a malaria survey of the Missouri Pacific Lines south of St. Louis.

The purpose of this survey, conducted during 1922 by the United States Public Health Service in cooperation with the Missouri Pacific Railroad Company and the State Health Officers of Arkansas and Louisiana, was to determine the prevalence of malaria among employees of the railroad, to ascertain the effect of malaria on operating cost and railroad revenues, and to make proper recommendations to the railroad for economical control of the disease.

Bearing upon the importance of malaria as a deterrent to progress, the facts brought out by this survey are significant. It was found that during the last twenty-three years the number of employees given hospital treatment for malaria in the hospitals of the Employees' Hospital Association averaged over 1,000 annually. This number constitutes 35 per cent of all hospital admissions and 45 per cent of all sick cases. For the same period injuries and surgical cases combined totaled only 75 per cent of the malaria admissions. In 1921 over 50 per cent of all medical admissions for one hospital were for malaria. In addition over 4,000 employees received outpatient treatment for malaria each year. The malaria census of four southern divisions shows that only 18 per cent of the malarial employees entered the hospital in 1921, that only 68 per cent even visited a doctor and that 32 per cent of all employees interviewed gave a positive history for 1921.

It was found that employees receiving inpatient treatment for malaria spent on the average nine days in the hospital. The hospital malaria rate is eight times higher among employees working south of St. Louis than among those west of that point. The rate for the entire system (1920-1921) was 11.5 per 1,000, the maximum rate was 72.2 occurring on the Louisiana Division. The highest hospital malaria rate among the groups on the Southern Division was 79.7, found among the bridge and building crews and the extra gangs. The lowest rate was 11.0, that of the shopmen.

With the sub-normal personnel of 1920 the cost of hospital treatment for malarial employees that year was over \$25,000. Transportation of malarial employees to and from the hospital and

the pay of employees absent from work with malaria are also tangible charges. Statements from railroad foremen indicate that malaria constitutes enormous charges against the cost of operation by reducing the efficiency of labor, by producing a shortage of labor and by creating a high labor turnover. Employees on malarious divisions are dissatisfied because of frequent sickness in the family and the excessive expenditures for medical attention.

A similar condition exists among the agricultural and industrial enterprises of the territory and the railroad passenger and freight traffic suffers the consequences.

Recommendations for a railroad malaria control program made by the Public Health Service embraces the protection of employees by methods most applicable to their mode of living, including effective screening of bunk cars and section houses, prophylactic quinine for "floating" gangs and section men and anti-mosquito campaign in shop towns and division points, and educational measures. Cooperation with state and local health departments in the inauguration of anti-mosquito campaigns in cities, malarious towns and farming communities on the lines of the Missouri Pacific Railroad is also advocated.

The Public Health Service holds that the railroads because of their common interest in malaria control and close contact at many points with rural population are in a favorable position to assist the local health authorities in conducting educational campaigns for the control of malaria.

This report, Public Health Bulletin No. 135, "Railroad Malaria Surveys," contains much of interest to both railroad employees and operators and should have a wide circulation wherever malaria exists. Incidentally copies of this publication can be obtained free of charge from the Bureau of the United States Public Health Service, Washington, D. C., as long as the limited supply lasts.

CORRESPONDENCE.

Editor Journal of the Florida Medical Association:

In the reports of recoveries from tetanus, it will be noted that almost without exception these are cases in which the incubation stage, or time between the initial injury and first symptoms of tetanus, was more than eight days.

At an annual meeting of the Association of the Seaboard Air Line Railway Surgeons in 1910, I called attention to the Yandell law.

Cases of lockjaw developing before the fourth day after the injury invariably died regardless of all treatments. Cases occurring after eight days occasionally recovered, and cases occurring after eleven days almost always recovered, regardless of any kind of treatment. I did not contend that treatment is useless. It is effective, however, only as modified by the above law, and by quick heroic measures adapted to each particular case, regardless of the old customary timid dosages and methods.

Of the various remedies, choloral in heroic doses for rapid, full sedation, regardless of the textbook dosages, repeated every two, three or four hours by proctoclysis if unable to swallow, has given me the best results. It will not modify the neurotoxines, but it controls the convulsions better than any other means, and by temporizing and preventing the rapid exhaustion of the heart, gives some chance to the patient. The intraspinal, intravenous and hypodermic injections of massive doses of the serum offers some help in modifying the neurotoxines.

Its efficacy as a prophylactic is beyond question.

L. S. OPPENHEIMER, M. D.

SAVING THE BABIES.

Citizens who live in communities apathetic to their infant death rate should consider carefully the results of the cooperative rural health work now being carried on in Green County, Missouri. A report just received by the United States Public Health Service at Washington shows a remarkable reduction in the infant mortality rate in Springfield and Campbell townships since the establishment there of a whole-time county health department.

In 1918 the death rate in these two Missouri townships was 105 per thousand. That is, out of every 1,000 babies born alive, 105 died in that year. Then Green county decided it could no longer afford to continue unmindful of its baby death rate and a health department was organized.

In the following year 1919, the infant death rate in these two townships dropped to 96 per thousand. In 1920 it went to 85, in 1921 to 76, and in 1922 the decline reached 61. In other words, Springfield and Campbell townships reduced their infant mortality rate 42 per cent within the short space of four years.

This forty-two per cent reduction furnishes a striking example of what may be accomplished in infant welfare by carrying out, with economy

and efficiency, a well-balanced general program of health work affecting all age-sex groups in a community with a well-administered health department under the direction of a whole-time health officer.

The example of Missouri in saving its babies should give cause to every citizen of other communities not equipped with health departments or health officers giving their full time to the work. It is time for the thinking men and women who live in such communities to organize; time for them to shake off their indifference and set about earnestly to save the lives of babies born in such communities. A county health department under the direction of a full-time health officer is the first objective. Missouri is showing the way.

COMMENTS OF THE PLEASING KIND.

My copy of THE JOURNAL OF THE FLORIDA MEDICAL ASSOCIATION in its new form and dress has just been received. I wish to congratulate you upon the very great improvement, and I am sure it will be much appreciated by every member of the Association. * * *

J. C. DICKINSON.

I must write you a line to congratulate you on the greatly improved appearance and make-up of THE JOURNAL. * * *

W. L. HUGHLETT.

* * * THE FLORIDA JOURNAL has not been coming to my desk, except occasionally, but I have seen it often enough to realize immediately that the July number represents an improvement in appearance and in spirit. I congratulate you and your associates and extend my sincere good wishes for the success of your efforts to improve and build up THE JOURNAL to a place where it will command and hold the interest and support of the entire profession in Florida.

OLIN WEST, *Secretary,*
American Medical Association.

* * * Let me say that you have improved THE JOURNAL considerably, and I congratulate you on your good work.

STEWART R. ROBERTS.

Have just received the July number of THE JOURNAL OF THE FLORIDA MEDICAL ASSOCIATION. You have good reasons to be proud of it.

Although the little journal was good, this issue is a great improvement. * * *

E. S. VALENTINE.

I congratulate you and your associates in the appearance and quality of the July number of THE JOURNAL OF THE FLORIDA MEDICAL ASSOCIATION.

R. H. MCGINNIS.

Volume X, No. 1, of THE JOURNAL OF THE FLORIDA MEDICAL ASSOCIATION has just been received. In make-up, contents, etc., it is a model medical publication, and the medical profession in Florida should be proud of their JOURNAL. The typographical appearance is excellent. You are to be congratulated on having a printing house that gives its output the quality stamp. * * *

E. W. MATTSON, *Manager,*

Cooperative Medical Advertising Bureau.

I am just writing to compliment you upon the improved appearance of your splendid JOURNAL. The new cover adds a great deal to the attractiveness of the JOURNAL. You are certainly using a splendid paper for your inside and with this kind of paper the printer will be able to give you a splendid job—he is giving you a splendid job.

C. P. LORANZ, *Secretary-Manager,*

Southern Medical Association.

The July number of your medical JOURNAL has just been received and we want to congratulate you on the appearance of the new JOURNAL. Certainly it is a more practical size and we can notice already a distinct difference in the number and tone of the general papers. * * *

EDGAR B. CARTER,

Director of Biological Laboratory,

Swan-Myers Company.

I was pleased to see the great improvement in THE JOURNAL OF THE FLORIDA MEDICAL ASSOCIATION and I want to compliment you upon getting out one of the best of the State Journals.

While at the San Francisco Convention of the A. M. A., Mr. Mattson, of the Cooperative Medical Advertising Bureau, told me that you would make some improvements in your publication, but I did not anticipate the wonderful improvement which you have made.

B. L. MALTBY.

MEDICAL WOMEN'S NATIONAL ASSOCIATION.

The ninth annual meeting of the Medical Women's National Association was held in San Francisco, June 25th and 26th, in conjunction with the American Medical Association meetings, Dr. Grace N. Kimball, president; Dr. Kate Campbell Mead, president-elect. At the open session, Monday evening, Dr. Ray Lyman Wilbur, president-elect of the American Medical Association, delivered an eloquent and inspiring address on the Power of the Minority.

At the open session, Tuesday morning, a five-year program was presented by the executive committee and council, and was adopted. This program is under five heads:

1. Continuation of the work of the Committee on Medical Service, American Women's Hospitals; Dr. Esther P. Lovejoy, chairman, 637 Madison avenue, New York.

2. Federation of American Women's Organizations with the Medical Women's National Association, under Organization Committee; Gertrude A. Walker, chairman, Whitefield, N. H.

3. Public Health, co-operating with American Medical Association Council on Health and Public Instruction, Hygiene, and Women's Foundation for Health, etc.; Dr. Elizabeth B. Thelberg, chairman, Vassar College, Poughkeepsie, N. Y.

4. Committee for Medical Opportunities for Women, Dr. Sue Radcliff, chairman, 21 Morris street, Yonkers, N. Y. Internships for young graduate-members of the Medical Women's National Association in hospitals conducted by the American Women's Hospitals; in missionary hospitals and in hospitals in U. S. A., as well as opportunities for private practice, service on boards of health, government appointments, etc.

5. Publicity for the Medical Women's National Association through *The Bulletin* and an editorial staff, consisting of the president and executive committee, president-elect and an editor-in-chief. Dr. Grace N. Kimball, Poughkeepsie, N. Y., was appointed editor-in-chief.

The Bulletin, which was published quarterly last year, will be continued as the official organ of the association and sent to all members of the Medical Women's National Association.

An amendment to the constitution was passed, providing for group membership. This was in response to proposals for federation made last year by certain societies of medical women.

Under the group membership amendment, organizations of women whose basis of membership conforms to that of the Medical Women's National Association, viz, membership in the American Medical Association, may join the National as group members: Kansas State Medical Women's Society, New York State Medical Women's Society, Connecticut State Medical Women's Society, Portland (Oregon) State Medical Women's Club, affiliated through their representatives at the San Francisco meeting.

The Nebraska, Los Angeles and New England Medical Women's societies signified their desire to take action regarding affiliation.

The Medical Women's National Association had a most interesting exhibit. Booth E of the American Medical Association, scientific and educational exhibits, showing the work of the American Women's Hospitals in Greece and Serbia. Twenty hospitals and a large number of dispensaries are being run by this committee of the Medical Women's National Association in Greece alone, under the directorship of Dr. Mabel Elliott, New York headquarters, 637 Madison avenue, New York; Dr. Esther P. Lovejoy, executive secretary.

Four periods on the American Medical Association Moving Picture Theater were assigned to the National—a film of work in Greece, Crete and the quarantine work on Macronesi Islands, shown by Dr. Esther Lovejoy; and slides of hospital and surgical work in Serbia, under Dr. Etta Gray.

Dr. Kate Campbell Mead, of Middleton, Conn., was installed as president. Dr. Katherine C. Manion, of Port Huron, Mich., was chosen president-elect.

The following officers and councilors were elected:

First Vice-President—Dr. Martha Welpton, San Diego.

Second Vice-President—Dr. Marjory J. Potter, San Diego.

Third Vice-President—Dr. Florence W. Duckering, Boston, Mass.

Secretary—Dr. Jessie W. Fisher, Middleton, Conn.

Treasurer—Dr. L. Rosa H. Gantt, Spartanburg, S. C.

The 1924 annual meeting of the Medical Women's National Association will be held in Chicago, Ill.

NEW AND NON-OFFICIAL REMEDIES.

PROTEIN EXTRACTS DIAGNOSTIC-P. D. & Co.—Protein extracts in the form of paste, the base of which is a mixture of glycerin and powdered boric acid. One part represents one part of original material.

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Co.*; Cucumber Protein Extract Diagnostic-P. D. & Co.*; Dog Hair Protein Extract Diagnostic-P. D. & Co.§; Duck Protein Extract Diagnostic-P. D. & Co.*; Duck Feathers Protein Extract Diagnostic-P. D. & Co.§; Egg (all proteins) Protein Extract Diagnostic-P. D. & Co.*; Egg White Protein Extract Diagnostic-P. D. & Co.*; Egg Yolk Protein Extract Diagnostic-P. D. & Co.*; Eggplant Protein Extract Diagnostic-P. D. & Co.*; English Walnut Protein Extract Diagnostic-P. D. & Co.*; Fig Protein Extract Diagnostic-P. D. & Co.*; Garlic Protein Extract Diagnostic-P. D. & Co.*; Ginger Protein Extract Diagnostic-P. D. & Co.*; Goose Protein Extract Diagnostic-P. D. & Co.*; Goose Feathers Protein Diagnostic-P. D. & Co.§; Grapefruit Protein Extract Diagnostic-P. D. & Co.*; Guinea-hen Protein Extract Diagnostic-P. D. & Co.*; Guinea Pig Hair Protein Extract Diagnostic-P. D. & Co.§; Haddock Protein Extract Diagnostic-P. D. & Co.*; Halibut Protein Extract Diagnostic-P. D. & Co.*; Herring Protein Extract Diagnostic-P. D. & Co.*; Hickory Nut Protein Extract Diagnostic-P. D. & Co.*; Horse Hair Protein Extract Diagnostic-P. D. & Co.§; Horse Serum Protein Extract Diagnostic-P. D. & Co.†; Juniper Pollen Protein Extract Diagnostic-P. D. & Co.†; Lamb Protein Extract Diagnostic-P. D. & Co.*; Lemon Protein Extract Diagnostic-P. D. & Co.*; Lettuce Protein Extract Diagnostic-P. D. & Co.*

Products marked * are prepared by the following method: The material is finely ground and mixed with four times its weight of sterile water containing 0.1 per cent of a phenolic preparation having a phenol coefficient of from 12 to 24 and shaken in a mechanical shaker for 24 hours. The mixture is then strained and filtered, and to the filtrate glycerin is added in the proportion of 2 Gm. for every 5 Gm. of original material and the water evaporated in a vacuum at 37 C. The glycerin extract is then mixed with powdered boric acid in the proportion of 2 parts of glycerin extract to 3 parts of boric acid. The finished amount of paste is equal to the weight of material taken.

Products marked † are prepared by the following method: Serum is mixed with glycerin in the proportion of 5 parts of serum to 2 parts of glycerin. The water in the mixture is evaporated in a vacuum at 37 C. The glycerin extract is then mixed with powdered boric acid in the proportion of 2 parts of glycerin extract to 3 parts of boric acid. The final amount of paste is the same as the weight of serum originally taken.

Products marked § are prepared by the following method: Dry pollen is extracted with physiologic solution of sodium chloride containing 0.05 per cent of a phenolic preparation having a phenol coefficient of 12 to 24 in the proportion of 1 Gm. pollen to 5 Cc. of menstruum, the mixture being ground in a ball mill for several days with sterile sand. After removal from the mill, the mixture is diluted with three times its volume of the solvent and shaken in a mechanical shaker for twenty-four hours. The mixture is filtered and glycerin added in the proportion of 2 Gm. for every 5 Gm. of pollen. Water is evaporated in a vacuum at 37 C. The extract is mixed with powdered boric acid in the proportion of 2 parts glycerin extract to 3 parts of boric acid. The final weight of the mixture is equal to the weight of the pollen taken.

Products marked § are prepared by the following method: The material (hair or feathers) is finely ground and mixed in the proportion of 125 Gm. and 2,000 Cc. 14 per cent alcohol and agitated in a mechanical shaker for twenty-four hours. The mixture is then strained and filtered and glycerin added to the filtrate in the proportion of 2 Gm. for every 5 Gm. of original material and then the water evaporated in a vacuum at 37 C. The glycerin extract is then mixed with powdered boric acid in the proportion of two parts of glycerin extract with three parts of boric acid. The finished amount of preparation is equal to the weight of original material taken.

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THE JOURNAL

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Florida Medical Association

OWNED AND PUBLISHED BY THE FLORIDA MEDICAL ASSOCIATION

VOLUME X
No. 3

St. Augustine and Jacksonville, Fla., September, 1923

Yearly Subscription, \$3.00
Single Copy, 30c

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ORIGINAL ARTICLES

THE DIARRHEAS OF INFANCY.*

F. C. MOOR, M. D.,
Tallahassee, Fla.

The relatively recent work in the classification, diagnosis and treatment of these common ailments is the author's justification for the presentation of this paper at this time. That this work has been well worth while is proven by the fact that the decrease in infant mortality during the past decade has been one of the shining marks to the credit of modern medicine.

The infantile diarrhea may be fairly well grouped into three general classes:

First—The Simple Diarrheas, due to intestinal indigestion, usually mild in type, with no toxemia, and readily corrected by a proper diet.

Second—The Infectious Diarrheas, which include not only the bacillary dysenteries and cholera infantum, due to infection from without, but also those nonspecific infections due to invasion by bacteria normally present in the intestinal tract, but which give rise to illness only under certain conditions of improper feeding.

Third—The Mechanical Diarrheas, due to some gross indiscretion in diet or to the too frequent use of cathartics. Under this heading might be also placed the diarrhea resulting from intussusception.

The above classification differs materially from that of the German or Finkelstein school, but is perhaps simpler and more in accord with American ideas.

The Simple Diarrheas may be further subdivided into three etiological groups, viz:

Intestinal Indigestion from—

First—Some particular element of the food (sugar, fat, starch, protein).

Second—Overfeeding.

Third—Underfeeding.

These may occur alike in breast- or bottle-fed babies and make up the great majority of the diarrhea of breast-fed infants. They are not accompanied by fever and the diarrhea is seldom

severe. The stools seldom exceed four to eight per day, are fecal in character, although some mucus is generally present. The color is not characteristic, being yellow, gray, green or brown, and probably varies depending on the particular food element at fault. The infant's nutrition is not markedly affected, although the weight curve almost always shows stationary or a gradual fall. There is usually some vomiting.

It is not always possible to differentiate the cases due to fat intolerance or sugar intolerance from those due to some other element in the food, and it is probably a fact that an indigestion due primarily to any one part in the food mixture so lowers the digestive function that most of these cases are clinically an indigestion of several or all of the elements. However, in these cases where the sugars are at fault, the stools are generally loose, foamy and bright yellow or green, while an intolerance of the fats is more apt to cause gray, pasty or putty-like stools with many fat curds present. Fortunately the inability to designate the particular food element at fault makes no difference as to the proper therapeutic measures to be used.

In bottle-fed babies under the care of physicians, the more or less general adoption of whole milk mixtures and the modern tendency to fix a safe limit on the sugar content has materially reduced the number of cases of improper feeding, but unfortunately too many babies are yet fed on the high carbohydrate proprietary foods, according to home-made or advertised formulas, and sugar and starch indigestions still play an important role in the production of infantile diarrhea.

In Type 2, due to overfeeding, the symptoms are practically the same as already noted. In bottle-fed cases, a careful study of the feeding history with notation of not only what the baby has been fed on, but how much and how often, taken in connection with the previous and present weight record and estimated caloric needs of the baby, will usually tell the story of overfeeding for a considerable period of time. Many of these cases give a history of a rapid gain in

*Read before the Fiftieth Annual Meeting of the Florida Medical Association, held at Jacksonville, May 15, 16, 1923.

weight for a time prior to the development of the diarrhea.

Type 3.—The diarrheas from indigestion as a result of *underfeeding* are frequently incorrectly diagnosed and consequently incorrectly treated. In this type, while the stools may be relatively frequent, they are usually small, often mere stains. The patient is fretful and does not sleep well and the temperature is apt to be subnormal. The feeding history, taken in detail as noted above, shows that there has been a marked deficiency in the food requirements for a considerable period of time. The experience of the author is that many such cases originate from the fact that the mother was not sufficiently instructed concerning the need for increased food to take care of increased weight, and, consequently, infants were kept for months on formulas given for a baby of a few weeks of age, or, that following some digestive disturbance and a consequent reduction of the food, the physician or mother have been too hesitant about increasing the food value to where it should be.

As mentioned earlier in this paper, the diarrheas due to intestinal indigestion from overfeeding, underfeeding, or improper feeding make up the great majority of the cases in breast-fed infants. It is particularly necessary that they be properly diagnosed and properly treated because it is still a too common practice to take a baby permanently from the breast because of frequent loose stools for a few days. A diagnostic procedure that is often of value is to weigh the baby just before and after each feeding for a day or two to see how much the infant is really getting. This will give worth-while data in overfeeding and underfeeding cases. The treatment is obvious. In the cases from overfeeding, either reduce the length of time at the breast to five or ten minutes or lengthen the intervals between feedings to four hours, or both. Sometimes stopping all nursings for twelve hours will be advantageous. In cases from underfeedings, regular nursing hours, rest and improved hygiene and diet for the mother, stripping the breasts after nursing as advised by Sedgewick and, if necessary, complementary bottle feedings after each nursing will almost surely cause a notable improvement within a short time.

In bottle-fed infants the treatment for all three types is entirely a matter of diet and the formula which will be found most generally satisfactory is skimmed milk $1/3$ and water $2/3$ (or $1/2$ and

$1/2$), boiled together for three to five minutes and given without sugar. (Saccharin may be used $1/2$ grain to the pint.) The feeding interval should usually be three hours and 3 to 8 ounces, according to age, given at each feeding. The usual method of figuring amounts is to give one ounce more per feeding than the infant's age in months, with a minimum of 3 and a maximum of 8 ounces. Just as soon as the diarrhea is controlled, the formula should be gradually increased by discontinuing the skimming, adding malt sugar and increasing the milk, until we have met the caloric needs of the particular baby under treatment. Since this gradual return from a special formula used for therapeutic purposes to the proper formula for a baby of given history, age and weight will apply in the dietetics of practically all classes of diarrhea, it will be discussed more at length at the conclusion of this paper.

Class 2.—The Infectious Diarrheas include, first, the true dysenteries due to the Shiga, Flexner, or colon bacillus and sometimes to streptococcus; second, cholera infantum; and, third, the Fermentative and Putrefactive types.

In dysentery the source of infection is "bad" milk or other infected food or drink. The onset is sudden with high temperature (103 to 106°), frequent vomiting, rapid emaciation and frequent stools (ten to twenty or more per day) with the early development of tenesmus. The stools are fecal at first, but very soon contain quantities of mucus and blood. The infant appears and is seriously ill almost from the onset. In a few days there is marked emaciation with the pinched facies, sunken fontanelles and other evidences of dehydration. The patient is usually very irritable or stuporous, frequently one condition alternating with the other.

The treatment generally advised is a cathartic (salts or oil) followed by a 24- to 48-hour fast with water given freely by mouth, or in extreme cases salt solution by hyperdermoclysis or intraperitoneally. Some authorities advise 1 drachm of saturated solution of magnesium sulphate every three or four hours or three times a day until blood disappears from the stools. Gastric lavage is sometimes necessary to control vomiting. Colon irrigations may be tried, but are usually difficult to give satisfactorily and causes much pain on account of the tenesmus. Stimulants — whiskey and strychnine — are usually indicated.

The diet after the first initial fast should be cereal gruels for three days or perhaps longer. It has been found that pure carbohydrate diet tends to stimulate the fermentative bacteria and produce an acid intestinal content which condition is unfavorable for the growth of the dysentery bacilli. These cases are always difficult to handle and generally run a protracted course of fifteen to twenty-eight days.

Cholera infantum has been grouped here with the infectious diarrheas, for although, as yet, no bacteria have been isolated as its direct cause, the disease has a very definite clinical entity and is most surely due to some bacterial contamination of the milk or other food. There is a sudden onset with high temperature (103 to 106°), frequent vomiting and rapid prostration. The stools are very frequent, twenty to forty per day, and early become almost pure serum and mucus (rice-water in appearance). Blood is *not* present.

The rapid loss of body fluids results in early collapse, often with coma, and death may occur in twelve to forty-eight hours from the onset.

The treatment is, first, oil or salts, if the case is seen very early, or, if this is vomited as will usually be the case, gastric lavage and colon irrigation. Fluids must be given freely as directed in dysentery and stimulants are demanded. The diet after twenty-four hours should be the same as in dysentery, e. g., a pure carbohydrate gruel.

The fourth class of the infectious diarrheas are the fermentative and putrefactive types. The etiology of these has been attributed by the Finkelstein school to indigestion or intoxication from the carbohydrates or proteins, respectively, but Kendall's studies of the intestinal bacterial flora has shown that, while it may be that some cases classified under this head are simple food disturbances, the great majority are due to fermentative or putrefactive bacteria, which are normally present in the intestinal tract and which become actively virulent in the presence of high carbohydrate diet in the one case, or high protein and low carbohydrate diet in the other. The carbohydrates are protein spacers and in the presence of a well-balanced diet it is probable that bacterial activity does not harm, but, theoretically, when there is a high carbohydrate diet the fermentative bacteria choke out the putrefactive type and fermentative diarrhea results. Per contra, if the infant is fed for a considerable

period on low carbohydrates and high proteins, the putrefactive bacteria become virulent and a putrefactive diarrhea follows.

In both of these types there is fever 100 to 103° ; the diarrhea is of moderate severity, the stools seldom exceeding ten or twelve per day, and do not contain blood. The nutrition is only moderately affected. Vomiting is not common and never frequent. In the fermentative type the stools are sour-smelling, loose and foamy, usually bright yellow or green in color, distinctly acid and irritant to the skin in reaction; while in the putrefactive type they are less frequent (four to six), often firm, foul or putrid in odor, usually brown or clay-colored and of a definite alkaline reaction.

The treatment of these two conditions is obvious. In both an initial purge of castor oil may be advisable, especially if there is much toxemia, followed by a twelve- to twenty-four-hour fast, water alone being given. If the case is not seen in the earliest stage, the purge is better omitted and the starvation limited to twelve hours or left off entirely. The rest of the treatment is entirely dietary. The milder fermentative cases should be put on $1/3$ milk and $2/3$ water, without sugar or starch, and if there is no improvement in forty-eight hours the case should be put on protein milk. The severer cases had better be put on protein milk from the start. (The author has found protein milk made with the proprietary casein preparations is very satisfactory and easy to handle.)

The putrefactive type should be put on cereal gruels (barley, arrowroot, flour, etc.) for two to four days, and then on weak milk formula diluted with the cereal gruel ($1/3$ milk and $2/3$ gruel). In both of the types an effort should be made to approach the normal diet just as soon as the symptoms have disappeared, because it is perfectly possible for persistence in the corrective diet to switch one type into the other. It must be also remembered that, while it is necessary to temporarily disregard the caloric needs of the infant in order to correct a definite disturbance, the resulting diet is almost sure to be unbalanced and insufficient. An especial caution is necessary with regard to the long-continued use of starch or cereal gruel feedings, and some of the infant hospitals and feeding stations now make it a rule to add $1/3$ or $1/2$ milk on the fourth day even if diarrhea is not checked and the milk has to be left off for the fifth and sixth days.

The third and last general class of diarrheas is here designated as mechanical. This includes the diarrheas from gross indiscretions in diet such as the feeding to infants of bananas, uncooked starches or other obviously indigestible substances. The onset of attacks from this cause are usually abrupt with vomiting and abdominal pain preceding the actual onset of diarrhea. The temperature is usually considerably raised at first, but drops very soon after thorough purgation. The number of stools varies from none to a dozen per day and contain undigested food and mucus. The infant, while acutely ill for a few hours or a day, recovers normal health very quickly. The treatment is a dose of castor oil followed by twenty-four hours of starvation.

Type 2 of the mechanical diarrheas is due to the too-frequent use of cathartics. The diagnosis and treatment are obvious.

Type 3 of this class is the diarrhea from intussusception. This is purely a surgical condition and is mentioned in this paper only because of the necessity of differentiating it from the bloody dysenteries. The onset of both intussusception and dysentery is usually acute, with vomiting and the early appearance of blood in the stools, but in intussusception there is no high temperature and the stools are nothing but blood and mucus, or if there be any fecal particles present, they are always mixed or coated with blood. The chief diagnostic points in intussusception are the presence of the sausage-like tumor in the abdomen, the ability to feel the intussusceptum by rectal examination and the fact that, following this rectal examination, there is a gush of pure blood as the finger is withdrawn.

In the treatment of all classes and types of diarrhea it is usually wise to give sodii bicarbonate by mouth or rectum in sufficient amounts to keep the urine alkaline and prevent the development of acidosis or ketosis, as it is now called.

We have several times referred in the preceding pages to the necessity of getting our patients gradually back to a normal or near normal diet as soon as it is safe to do so. It has been the author's custom to note on the case record not only the diet prescribed for the correction of the diseased condition, but, at the same time, to record the estimated caloric needs of the baby and note the ideal or ultimate formula to meet such needs. For this purpose the cases are divided into three classes:

First—Babies under 4 months of about normal weight for their age.

Second—Similar babies over 4 months.

Third—Emaciated babies of any age.

In considering the normal the birth weight must always be taken into consideration. For the first class, e. g., normal babies under 4 months, 40 to 45 calories per pound per day is figured as the average requirement; for the second class, 50 to 55 calories, and for the third, 60 to 75 calories. For babies under 10 pounds, 1 ounce of sugar per day is estimated as the maximum, while for babies over 10 pounds 1½ ounces is allowed.

With the temporary as well as the ideal formulas before us, it is not difficult to progress gradually from one to the other, beginning the increase as soon as our judgment permits and moving up as fast as can be without overtaxing the tolerance of the patient.

This brief resume of the diarrheas of infancy cannot go into the details of diagnosis or treatment, but it is our hope that it will give a basis for both.

In conclusion I wish to give credit to the Pediatric Department of the New York Post-Graduate Medical School and Hospital, and more particularly to Drs. Dennett and De Sanctis for the general principles of classification, etc., given here.

SAFEGUARDING PROSTATECTOMY.*

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The treatment of benign hypertrophy of the prostate is entirely surgical. Of all men past 50 years of age 65 per cent have prostatic hypertrophy and of this number 35 per cent require treatment.

The advancement made in the treatment of this 35 per cent does not warrant the present attitude of the medical profession towards operative procedure. There seems to be a well-established idea among most medical men that the removal of a benign prostatic hypertrophy is a procedure of last resort and should not be instituted until such a time as would permit of the excuse, "he would have died anyway," appears as a very plausible alibi.

*Read before the Fiftieth Annual Meeting of the Florida Medical Association, held at Jacksonville, May 15, 16, 1923.

The size of the hypertrophy as felt by the rectum is very often of little value where the prostate is small and is certainly a very poor way to make a diagnosis.

The symptoms of hypertrophy of the prostate are essentially those of mechanical interference to the urinary stream. Frequency of urination, nocturnal at first, is usually the primary indications of the disease, and difficulty of urination, pain and bleeding soon follow.

All these symptoms are the result of residual urine. Then these symptoms or when residual urine is found, no matter what the rectal examination may define as to size, the indication for interference is patent.

The procrastination at this time leads on to added infection both of the bladder and kidneys, and undoubtedly complicates the situation.

The dangers attending prostatectomy are hemorrhage, myocardial failure and uremia. Bleeding has not been a complication at the Bayside Hospital. The bleeding has been prevented in a great measure by the preliminary suprapubic drainage. Undoubtedly placing the prostate at complete rest reduces the bleeding to a minimum.

The careful dissection of the prostate, keeping well within the capsule so as not to interfere with the prostatic plexus, is certainly an aid. If bleeding does occur, it is not difficult to control it by suture of the bladder wall.

The myocardial failure is a serious complication and is usually precipitated by the great amount of back pressure and its direct effect upon the kidneys. To combat this condition we have found it advisable to call in our internist at the outset and have him institute such measures as he deems advisable.

Fortunately, Dr. Bitzer, head of the Division of Medicine of the Bayside Hospital, has taken a considerable amount of interest in this class of heart conditions, and through his care we have been able to combat this complication. I hope he will be good enough to discuss this particular feature.

The most serious of all complications and one that is always present is uremia. Uremia is the direct result of back pressure and inevitably will lead to a fatal issue unless properly and adequately controlled. The amount of uremia is in direct ratio to the amount of residual urine present and, of course, is increased by the presence of infection. It is obvious then that the ideal means

of controlling the serious results of uremia is the early recognition of the disease and immediate operative interference.

Now, uremia being present in all these cases, with the mechanical block of the urethra producing back pressure, the cause of uremia, a preliminary side-tracking of the urethra is obviously the proper procedure.

It is routine at the Bayside Hospital for this class of cases to have determined by blood chemistry the amount of urinary retention. In all cases we do a preliminary suprapubic cystotomy under local anesthesia and establish continuous bladder drainage.

The patient is placed upon a low protein diet and the amount of protein given depending upon the amount of retention. Special care is taken of the bowels and skin, and as early as possible the patient is up and walking.

Blood examinations are made from time to time, and when the blood urea, uric acid and creatinine are approximately normal, and not until then, do we consider the enucleation of the prostate as feasible. The uremia having been cleared, the infection if present controlled and adequate means instituted to combat myocardial complications, then are we prepared to operate.

The final operation is either done under local or under nitrous oxide gas. The operation is done with a minimum loss of time. A large Freyer tube is anchored in the bladder and removed in twenty-four hours. The patient is permitted to be up as early as is consistent, usually in three or four days.

The wound heals by granulation and the urinary act is restored within a period of two or three weeks.

CASE REPORTS.

Case No. 2249, a retired farmer, 77 years old, with a negative venereal history, was brought into the Bayside Hospital September 14, 1922, suffering excruciating pain from complete urinary retention.

The urinary retention was relieved by the gradual withdrawal of urine through a catheter. Rectal examination revealed an enormous prostate.

The metabolic chemistry showed 40 mg. of urea nitrogen and 2.6 mg. of creatine. Two days later a suprapubic cystotomy was done under local anesthesia (procaine 1 per cent). He was immediately placed upon a low protein diet and

routine care. One week after the cystotomy his urea nitrogen was 46 mg. and creatine 2.8 mg. Two weeks later his urea nitrogen had fallen to 30 mg. and the creatine down to 2 mg.

On October 10th the prostate was enucleated under nitrous oxide gas anesthesia.

The convalescence was uneventful and he was discharged November 2nd, cured.

Case No. 2054, a retired merchant, was brought into the Bayside Hospital with complete urinary retention, on December 12, 1922. He was 72 years old and gave the history of having had two or three attacks of retention during the past year, but had been relieved by the use of the catheter. His removal to the hospital was the result of the inability of the doctor to pass a catheter.

A catheter was finally passed with much difficulty and the retained urine was gradually withdrawn.

A diagnosis of benign prostatic hypertrophy was made.

Metabolic chemistry revealed urea nitrogen 19 mg. and creatine 2.3 mg. A suprapubic cystotomy under local anesthesia was done and continuous drainage was instituted.

Dr. Bitzer's examination revealed a myocardial failure and he was immediately placed upon treatment.

One week later the urea nitrogen was 20 mg., and creatine 2.8.

December 26th the urea nitrogen was 16 mg. and creatine 2 mg.

On account of the condition of his heart it was considered inadvisable to administer a general anesthesia.

December 28th the prostate was removed under local anesthesia (procaine 1 per cent), and on January 30th the patient was discharged cured.

CONCLUSIONS.

1. That the delay in obtaining adequate treatment for patients with residual urine is dangerous.
2. That the pre- and post-operative care of patients is essential for success in prostatectomy.
3. That prostatectomy offers relief with a minimum amount of danger.

GASTRO AND DUODENAL ULCERS.*

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and

H. L. BRILLHART, M. D.,

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The writers of this paper realize that this is a threadbare and worn subject, and the excuse for its presentation is primarily not to bring out anything new either in diagnosis or treatment, but to emphasize the importance of the disease as we see it from a clinical standpoint.

Taking this as a basic foundation for the paper, and having you clearly understand that we are not going into the scientific side of it, as has so often been done in research work to prove or disprove the cause of the existence of such ulcers, but rather to impress upon you the value of symptoms and early detection of this affection, is the thing that is of greatest importance to our minds.

We also realize that there is a wide difference of opinion between the clinician and the surgeon as to the proper method of treatment and the results to be had, and this should be explained in the beginning as the reason for the clinician's claim that in 60 per cent or more of the cases it is possible to effect a cure that is permanent without recurrence and that are free from symptomatology over a great many years.

The surgeon, from his standpoint, sees only the cases that have existed for a great number of years, presenting the complex symptoms that are present with these chronic cases, and they show lack of healing or the effect of medical treatment upon the condition; hence, it is their opinion that only about 10 per cent of all ulcer cases yield to medical treatment. The reason for this is, first, the medical man sees such a vast number of acute digestive disturbances that are finally diagnosed as ulcer, treated as such, lost sight of, never to reappear in the office of any doctor for further treatment; whereas, the surgeon of necessity, considers that medical treatment is of little value when the history, properly written and considered, together with the aids of diagnosis are brought to bear upon such cases, and, finally, operative procedure shows that these ulcers that have been subjected to medical treatment are not benefited.

*Read before the Fiftieth Annual Meeting of the Florida Medical Association held at Jacksonville, May 15, 1923.

As to the etiological factors entering into the cause of ulcers, it is pretty definitely conceded that they are always of an infectious nature: by far a greater number being found as a secondary complication to focal infections, such as tonsils, teeth, or, in fact, any other of the infections that can be located elsewhere in the body, or from trauma of the mucosa as the result of taking of harsh foods causing the abrasion per se and secondary infections from the cavities.

To arrive at a proper diagnosis there is a definite procedure that should be followed in all cases, the most important of which is the proper taking of the history of the case. It should be written and re-written more than once. The patient should be permitted to discuss in his own terms the symptoms leading up to his visit to the doctor, and not allowed to give you a history as the result of leading questions. Not infrequently is it a fact that a patient will state a most definite history without any suggestion on the part of the doctor.

Of the symptoms that are of greatest importance in arriving at your diagnosis we would place at the head of the list pain; next, pain on pressure over the epigastrium; next, loss of weight; and, finally, hemorrhage.

The first symptom, that of pain, either in the acute or chronic type of ulcer, has a definite bearing, and whenever associated with any form of distress after the intake of food, should at once suggest to the mind of the doctor the possibility of ulcer. This pain varies in intensity depending upon the location of the ulcer, whether in the stomach, the pylorus, or the duodenum; but this can be said, and is of great importance, that when pain is constant for any great period of time under the midepigastrium, or to the right of it, either in front or to the left in the back, that is, located between the tenth and twelfth dorsal vertebra, there is no symptom that is so pathognomonic of ulcer as is this one symptom. Particularly true is this, when associated with food intake. There is a variation in the type of pain and the character of pain between the gastric and duodenal ulcer that must be considered. Where your ulcers are situated within the walls of the stomach or pylorus and not in the duodenum, the intake of food will be followed by pain appearing almost immediately and up to two and one-half hours, while that of the duodenal ulcer is very much later coming on—as a rule from three to five hours afterwards—and is most fre-

quently felt at night, some five and a half or six hours after the intake of food. In fact, it is not infrequent to have these patients with duodenal ulcers say to you that the pain occurs with so much regularity that it is their custom to take to their room crackers or milk, so that when the pain appears they can partake of food and get almost instant relief.

As to the second symptom—that of tenderness—where the ulcer is present and active, the pain is definitely circumscribed and ever present and is easily differentiated from that of gall-stone, where the pain comes on acutely irrespective of taking food and whose location cannot be determined after the attack has subsided, while that tender spot of the ulcer, either duodenal or gastric, remains permanent and is easily detected by anyone.

In the type of ulcer that gives the greatest concern, and in practically all ulcers, the marked and rapid loss of weight is most pronounced. Not infrequently will your patient tell you of having lost thirty or forty pounds within a very brief period, say three or four months. It is usually this type of case that has the longest history of trouble and one which should cause extreme suspicion of malignant degeneration, which is a frequent complication of ulcer of the stomach. Nevertheless, duodenal ulcers will show a proportionate loss of weight to those of gastric ulcers, but the duodenal ulcer, except in about one per cent of the cases, does not degenerate into malignancy.

The fourth and last symptom that should attract your mind to the possibility of ulcer, namely, that of hemorrhage, is not sufficiently frequent to lend any great weight in making the diagnosis and is only a significant one when associated with the three more prominent symptoms just mentioned. Not infrequently is it true that your patient will have hemorrhage from the stomach without other symptoms, where you will have to differentiate between diseases of the pancreas, spleen and liver, being devoid of the symptoms referred to above.

Just here it is meet and proper that we should refer to the character of these ulcers and the type of the pain produced, and say that the prominent symptoms of the ulcer mentioned before are not constant in every way. Often you will carry a history over twenty years where there are remissions of symptoms lasting for six months or more or more down to a few weeks. In fact, the early

spring and late fall are the times for the ulcer to become most active and produce its symptoms. This is not easily explained and we shall not attempt to give you the reasons for the same.

After you have completed your clinical diagnosis the case should be the subject of the roentgenologist, which adds very materially to what is an essential part of the completed diagnosis. The various irregularities of the stomach, incisures, irregular caps, adhesions, etc., can only be determined by the careful use of the X-ray and in the hands of an experienced operator. Too much cannot be said for its diagnostic aid.

As to treatment: Medical treatment should be tried on every case and persisted in for a period of six weeks to three months, unless for special reasons. If, after a trial of the medical treatment, failure is met with, it is then quite early enough to think of surgical intervention.

As to medical treatment: There are various types of diets, one differing from the other only in slight detail. The principles of medical treatment are as follows: Absolute rest in bed; ice over the epigastrium; restriction of diet within the first two weeks to milk and nothing else, after that adding such food as is easily digested and nonirritating, with alkaline medication for not less than from four to six weeks, and, after that, for a period of months, providing the symptoms have subsided with the proper regulation of diet.

As to surgical treatment, we shall only mention the various types, rather than the details of surgery. Pyloroplasty, excisions, cauterizations, and, where definite obstructive changes have taken place, resections and gastroenterostomy should yield wonderful results in all chronic types of ulcer that have not undergone malignant degeneration.

It is our pleasure to present the histories of six cases that have occurred within our practice during the past four months, representing different types of the disease, one differing from the other somewhat, but of sufficient importance to bring to your attention the value of painstaking work.

CASE NO. 1.

We wish to refer to this case with a great deal of emphasis. This young man, at the age of 27, having gone through the entire campaign in France, subjected to active and intense service without a day's illness, whose history proves too that he was negative of any disease during the last twenty years, had an acute perforating duo-

denal ulcer coming on at 12 o'clock at night, after the intake of food at 5 o'clock on the afternoon of December 25, 1922. The pain was of such intense character that it was impossible to relieve it with morphia, growing continuously worse; abdomen rigid, elevation of temperature, and uncontrollable pain up to 8 o'clock of the morning of December 26th, when the abdomen was opened and acute perforation found in the first portion of the duodenum, with parts of the stomach's contents over the entire peritoneal cavity. In this case there was a simple closure with drainage and non-eventful recovery. This case particularly typifies that form of ulcer that has the greatest hazard as to life. In the past a diagnosis has not been made in many cases, and the patient died because of the incident delay.

Of the other four types, No. 2 represents a history that covered more than twenty years, with attacks slight in the beginning, long intermissions of apparent relief, with recurrences after five or six years, the attacks becoming more frequent up to a period of the last six months, but no rapid loss of weight ensued. Visible peristaltic waves over the upper epigastrium, with X-ray findings, stomach analysis, all indicated a complete obstruction. Projectile vomiting, inability to retain food and loss of weight aggregating twenty pounds preceded the operation by two weeks. This was a duodenal ulcer producing a complete obstructive condition, where a gastroenterostomy gave immediate relief, rapid recovery and regaining of weight.

Case No. 3 typifies another type of ulcer whose history you will hear in a few moments, and is of importance because of the fact that the X-ray showed conclusively that it was an acute perforating type of ulcer; that within thirty-eight hours after the X-ray finding this man had a perforating ulcer and died within four days, having declined operative interference which was offered to him at the conclusion of the X-ray examination.

Case No. 4 typifies a chronic type of ulcer that had existed for eight years that yielded to medical treatment, being free from all symptoms and illness, considered, up to this moment at any rate, a perfect result in the hands of the medical man.

Case No. 5 is of interest only so far as the X-ray finding is concerned, and whose plates will be shown you by Dr. Cunningham as a typical duodenal ulcer yielding to medical treat-

ment and being relieved in its entirety up to this moment.

Case No. 6 is the type of ulcer that is met with so often, whose history is rather vague, covering a period of six years without any great amount of illness up to four months preceding the operation, when a definite obstructive change was shown, both clinically and by the use of the X-ray, that had progressed to a malignant stage. This case was handled from a surgical standpoint doing a posterior gastroenterostomy, no loop, and this operation done only to relieve starvation. The patient rapidly gained weight immediately thereafter, but is now in the terminal stage of cancer.

We are deeply indebted to Dr. L. W. Cunningham for his kind assistance in these cases, and others, and it is our pleasure to have him show you lantern slides and discuss with you the various findings from the standpoint of the roentgenologist.

CASE No. 2.

Age 46; farmer.

Past History: Negative.

Personal History: Usual diseases of childhood; malaria twenty years ago, no other illness. About ten years ago he began to have trouble with his stomach, followed by headaches; was relieved by cathartics. There were intervals of months in which there was freedom from pain or distress; these symptoms became gradually worse and more frequent and were complicated with vomiting which lasted for several days or a week, when he again became free of pain for some time.

Physical examination: Patient very much emaciated and undernourished; skin dry and parchment-like; tongue red and angry looking. Heart and lungs negative; abdomen small with visible peristalsis over stomach; soreness to pressure over pylorus and gall-bladder region.

Test Meal, 1,000 c.c. Clear fluid, very acid. Hcl., 100. Total acidity, 140.

CASE No. 3.

Age 67; merchant.

Past History: Negative.

Personal History: Negative as far as disease is concerned.

Present complaint: About six months ago began to have pain in upper abdomen, coming on after a hearty meal, usually in the evening or middle of the night; symptoms became gradually worse and were only relieved by taking food or

vomiting; sometimes get relief by taking soda or peppermint.

Physical examination: Head and chest negative; abdomen, soreness in epigastrium to the right of media line.

Test meal, one hour, 800 c.c. Hcl., 90. Total acidity, 120.

CASE No. 4.

Age 34; occupation, salesman.

Past History: Negative.

Personal History: Measles and mumps as a child; influenza five years ago. Has had trouble with indigestion for eight years, being troubled with pain and discomfort in upper part of abdomen for several months, then would get relief by dieting and medication for two or three months. Pain comes on when stomach is empty three or four hours after eating; kind of food makes no difference as far as pain is concerned, except acid fruits; in fact, eating usually relieves the pain and discomfort.

Physical Examination: Patient well nourished; skin normal; several bad teeth; heart and lungs normal; abdomen, tenderness to pressure in right epigastrium just above the umbilicus.

Test meal, 200 c.c. Hcl., 70. Total acidity, 90.

CASE No. 5.

Age 33; occupation, traveling man.

Past History: Negative.

Personal History: Had measles, mumps and scarlet fever. For the last four years has been troubled with pain in epigastrium, particularly when very tired or worried; would get relief by making himself vomit; would then be free from pain as long as two months at a time. Pain always comes on in the afternoon or night; very often wakes at 2 or 3 o'clock in the morning with pain; taking of food relieves him immediately. Has not noticed that any particular kind of food brings on pain.

Physical Examination: Patient well nourished; no loss of weight; heart and lungs negative; abdomen—tenderness on pressure over right epigastric region.

Test meal, 200 c.c. Hcl., 60. Total acidity, 90.

CASE No. 6.

Age 74; occupation, farmer.

Personal History: Negative up to six years ago, when he noticed for the first time some epigastric distress after taking of food, which was relieved at first by the use of bicarbonate of soda and other simple remedies, later becoming

more aggravated, with intermissions at shorter intervals between attacks, nausea, vomiting, and six weeks preceding this examination had lost materially in weight, with projectile vomiting, visible peristaltic waves from left to right, with a marked dilatation of the stomach.

Diagnosis at that time carcinoma in the pyloric end of the stomach.

Had this case been properly diagnosed and treated in its early days, it is quite likely that a malignant degeneration would not have occurred.

A DISCUSSION OF SOME OF THE DIAGNOSTIC POINTS OF THE ACUTE ABDOMEN.*

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Century, Fla.

The frightful mortality and morbidity from acute abdominal emergencies has impelled me to call your attention to some of the diagnostic features. As appendicitis is one of the most frequent acute abdominal conditions, I recalled the last fifty cases operated, and have the following to present to accentuate the effect of delay on mortality:

Ruptured (drained), 21; mortality, 29 per cent plus.
Not ruptured (drained), 14; mortality, 0 per cent.
Not drained, 15; mortality, 0 per cent.

Personally, I have never seen a clean or unruptured case of appendicitis die. Delay in other acute abdominal conditions is fraught with like disaster.

This being true it behooves us to make a strenuous effort to eliminate it.

You will observe in the figures above presented, the mortality of delay to be 100 per cent. I will not charge, as is often done, the general doctor with this state of affairs. Early in his experience he has followed a few of his cases to the surgeon, who took bellyache as an indication for operation, and has seen organs removed that he knew were perfectly normal. This has led to confusion in his mind and a doubt is soon formed about bellyache that leads to delay. The problem is squarely up to the man who operates. He must be capable, industrious, absolutely honest and firm with his doctor patrons.

In my limited observation of doctors who refer me patients, there are good sensible ones, and antithetic extremists. Of the latter, one extreme wishes you to operate every bellyache and is

angry if you do not; the other does not want any operated. The last-named group is a great menace to both his clientage and to the reputation of the surgeon who is so unfortunate as to get hold of his late cases. They predict a funeral when forced to carry the patient to the surgeon and the prediction usually comes true. I would urge everyone, when possible, to follow his cases to the surgeon, and then check up their combined diagnosis.

You will observe a chart there, in which is listed all the possible conditions, which I could recall, that may cause pain in the abdomen. The abdomen is cut up into four quadrants, the pelvis being included, and the epigastrium is made to mean the mid-line from the zyphoid appendix to the umbilicus and the hypogastrium from the umbilicus to the pubis. I shall not repeat this list, but will proceed to the discussion of some of the general principles governing diagnosis of the acute abdomen. I can do no better than to state those laid down by Cope:

(1) The first principle is that of the necessity of making a thorough and serious attempt at diagnosis.

(2) Diagnose early.

(3) The principle of making a thorough routine examination.

(4) The application of one's knowledge of anatomy.

(5) The application of one's knowledge of physiology, particularly in obstructive lesions.

(6) The necessity of excluding medical diseases before operating.

These principles are so obvious that discussion is not needed.

It is necessary when presented with an acute abdomen to obtain an accurate chronologic history of the attack and such of his previous history as may be of value. Pain being the chief symptom in most cases, should have its nature explained, and the following noted: Its location, radiation, shifting or stationary, accompanied or followed by vomiting; bowels whether constipated or loose and the nature of the discharge; whether or not urination is disturbed or painful and its relation to present suffering; fever whether it preceded, accompanied or followed the pain; whether or not respiration is painful; or whether body movements are painful and which group of muscles is affected. Unless these inquiries are made something very important may be missed.

*Read before the Dallis County Medical Society at Selma, Ala., Sept. 26, 1922.

For instance the right iliac pain, early in typhoid fever, is practically always preceded by fever. I think I can say without contradiction, that every disease has a perfectly orderly development where not disturbed, and this is particularly true of the diseases of the abdomen.

Vomiting, as a rule, is earlier in colics than in inflammation, except intestinal perforations; in high obstructions than in low; not common in pelvic diseases; early in acute intestinal toxæmias and nearly always accompanied with diarrhœa, and is more frequent in children than in adults.

Temperature is not high in the common acute abdominal and pelvic diseases. In salpingitis and appendicitis the range is about the same—100 Fahrenheit to 102 Fahrenheit, it will range perhaps a little higher in cholecystitis and may be quite high in hepatic abscess. A high temperature in the acute abdomen nearly always means a spreading peritonitis. The pulse usually corresponds with the temperature, except in intestinal perforation, acute pancreatitis and ruptured ectopic gestation.

Abdominal Rigidity and Tenderness. Rigidity is nearly always present during paroxysms of pain, but relaxes during the intervals, but is continuous when there is involvement of the peritoneum. This accounts for its absence during the early period of appendicitis and cholecystitis. It is not at all common in pelvic diseases on account of the spinal segment that corresponds to this area being on a lower level. The pyroformis, psoas, iliacus and obturator spasms are present in low inflammations of the abdomen and the pelvis.

Tenderness (or pain on pressure) is very valuable in locating the point of inflammation both by direct pressure over the point and by distant pressure causing local pain.

Distention, general or local, should always be investigated carefully, and in the absence of toxæmias that may cause intestinal paralysis, usually indicate intestinal obstruction or peritonitis. Hyperesthesia of the skin of the abdomen is not constant but occasionally of value in testing points of inflammation.

<p><i>Right Upper Quadrant.</i></p> <p>Cholecystitis—Perforating Gastric or Duodenal Ulcer—Hepatic Abscess—Diaphragmatic Pleurisy—Right-sided Pneumonia—Spinal Caries—Tabetic Crisis—Angina Pectoris—Perforating Ulcer or Obstruction of Upper Portion of Ascending and Right Half of Transverse Colon—Diseases of Right Kidney and Ureter—Appendicitis—Herpes Zoster—Aneurism of Hepatic Artery—Acute Malaria.</p>	<p><i>Epigastrium.</i></p> <p>Everything in the two upper quadrants plus Strangulated Umbilical Hernia and Appendicitis.</p>	<p><i>Left Upper Quadrant.</i></p> <p>Perforating Gastric Ulcer—Acute Pancreatitis—Acute Splenitis—Rupture of Spleen—Obstruction or Rupture of Left Half of Descending Colon—Left Diaphragmatic Pleurisy or Pneumonia—Tabetic Crisis—Angina Pectoris—Diseases of Left Kidney—Spinal Caries—Herpes Zoster—Rupture of Aneurism of Abdominal Aorta—Acute Malaria—Diseases of Left Ureter.</p>
<p><i>Right Lower Quadrant.</i></p> <p>MALES.</p> <p>Appendicitis—Intussusception—Right Ureteral Block—Obstruction or Perforation of Lower Half of Ascending Colon and Cæcum—Volvulus of Cæcum—Typhlitis (Tubercular or Amœbic)—Spinal Caries—Hip Joint Disease—Sacroiliac Disease—Inflammation of the Right Vas-Deferens—Seminal Vesiculitis—Herpes Zoster—Strangulated Femoral and Inguinal Hernia—Inflammation of the Lymphatic Glands Along the Iliac Arteries and Ruptured Aneurysm of Iliac Arteries—Cholecystitis—Tabetic Crisis—Malaria.</p> <p>FEMALES.</p> <p>All above except Inflamed Vas-Deferens and Seminal Vesiculitis, and in addition: Salpingitis—Oophoritis and Twisted Pedicle of Ovarian Cyst or Fibroid. And in Pregnancy, Ruptured Ectopic Gestation.</p>	<p><i>Hypogastrium.</i></p> <p>Intestinal Colic or Paralytic Ileus may make itself manifest in any of the regions named; likewise Mesenteric Thrombosis or Embolism—Obstruction of the Bladder.</p> <p>Everything in the two lower quadrants, plus Diseases of the Uterus and Bladder.</p>	<p><i>Left Lower Quadrant.</i></p> <p>MALES.</p> <p>Obstruction of lower half of Descending Colon—Volvulus of Sigmoid—Inguinal and Femoral Hernia—Blocked left Ureter—Spinal Caries—Herpes Zoster—Inflamed Lymphatic Glands along the left Iliac Arteries—Hip Joint Disease—Sacro Iliac Disease—Inflammation of Left Vas-Deferens and Seminal Vesicles—Tabetic Crisis—Ruptured Aneurysm of the Iliac Arteries—Diverticulitis—Malaria and Inflamed Lymphatic Glands.</p> <p>FEMALES.</p> <p>All above except Inflammation of the Vas-Deferens and Seminal Vesicles, and in addition: Salpingitis—Oophoritis and Twisted Pedicle of Ovarian Cyst or Fibroid. And in Pregnancy, Ruptured Ectopic Gestation.</p>

I shall briefly discuss the most common lesions of the acute abdomen in the order of their frequency as I have observed them.

Appendicitis. The dictum laid down by John B. Murphy, namely, pain—usually epigastric, nausea or vomiting, fever, leucocytosis, localized tenderness—should be followed in diagnosing this condition. The exceptions to this are due to abnormal situation of the appendix, particularly of the retrocaecal and pelvic appendix. The former may resemble pyelitis, perinephritic abscess or ureteral colic; however, examination of the urine microscopically should in most cases clear up the diagnosis. Murphy's fist percussion over the right kidney is particularly valuable in differentiating ureteral obstruction from even the retrocaecal appendix, as the pain is much more agonizing in the former than in the latter. The pelvic appendix may be confused with acute salpingitis, but careful examination by vagina will show the appendix higher than is usual for the acute tube, except in rare instances where they are adherent together. There is no particular difficulty in recognizing acute salpingitis, for it most often begins in the left side and later shifts to the right; besides there is usually a history of dysuria and leucorrhœa. The main danger is to mistake salpingitis for appendicitis, ruptured ectopic gestation, or twisted pedicle of the ovary. This is especially important because acute salpingitis does not often call for urgent operative interference.

Cholecystitis. The order of development is almost identical with that of appendicitis and the main difference is in the location of tenderness. There may or may not be a history of previous attacks or of jaundice. The less violent onset will differentiate it from perforating gastric or duodenal ulcer, or acute pancreatitis, and the previous history from hepatic abscess.

Intestinal Obstruction. I will not discuss those due to hernia, except that of femoral which may be overlooked on account of the occasional small size of protrusion or excessive fatness of the patient. In infancy and early childhood intussusception is the most frequent obstruction and the iliocaecal is the most common of the three varieties. The classical picture, pain, shock, vomiting, bloody mucus discharge from the bowel, paroxysmal pain, and the feeling of a tumor, and absence of cecum from right side can usually be observed. The obstruction by bands and adhesions have a similar picture except the

bloody discharge and perhaps a lessened amount of shock, and there is generally a history of previous surgical operations or injuries of the abdomen or peritonitis. Cancer of the large bowel is the most frequent cause of obstruction in people past middle life. There is here usually a history of subacute attacks of obstruction, that gives a hint of the pathology. Volvulus of the sigmoid and iliocaecal junction are also most common in the elderly and usually are very sudden and severe in their onset.

Acute Urinary Retention, from prostatic hypertrophy, is easily recognized and urgency for action is obvious.

Ruptured Ectopic Gestation should not be very difficult to recognize, but as a matter of observation I find that it is frequently overlooked and the cases are later brought to the surgeon with infection of the pelvic hematocele. There is nearly always a history of a delayed or missed period or periods, with sudden abdominal pain, usually hypogastric, accompanied by faintness or actual fainting. The patient soon becomes blanched with more or less rapid and feeble pulse. Examination shows a doughy or fluid mass in the abdomen with usually bulging of Douglas' cul-de-sac. The accidents of pregnancy, such as rupture of the uterus and those necessitating Cæsarian section, properly belong to the acute abdomen and the need and urgency for operative treatment are usually very obvious.

Twisted Pedicle of an Ovarian Cyst is not always easy of recognition on account of the great distention of the sac, giving the impression that the mass is a solid tumor. However, this is of no great importance since the urgency of the symptoms indicates the necessity of an immediate operation.

Hepatic Abscess is not frequent in this climate. It is not so difficult, as a rule, to diagnose if the previous history is carefully considered. The amœbic type is generally preceded by diarrhœa or dysentery. However, occasionally the bowel disturbance has been forgotten and it is necessary to question closely to bring out this point. The other type is usually preceded by some pus focus in the abdomen, but occasionally from other parts of the body. The physical findings suggestive of hepatic abscess are enlargement of the liver, fever and tenderness. Exploration with the needle generally clinches the diagnosis.

Perforating Gastric or Duodenal Ulcer is so violent in its onset that the attendant is made

aware that some great calamity has happened in the patient's abdomen, and a history of pain at regular intervals with relation to meals will usually start thought in the right direction. The main physical signs are shock, board-like hardness of the abdomen, restriction of diaphragmatic motion, absence of liver dullness, particularly in the mid-axillary line, and evidence of spreading peritonitis.

Inflamed Meckle's Diverticulum I have never seen, but should imagine the symptoms are largely those of appendicitis, with a different point of tenderness and rigidity. However, as the appendix varies considerably in its location, I do not think it possible to differentiate before operation.

Acute Pancreatitis is another acute abdominal lesion that I have never seen, but, like perforating gastric or duodenal ulcer, it should be easily recognized as a surgical emergency. I understand that patients frequently faint on account of the violence of the symptoms. Here again it is said we have the board-like hardness of the abdominal muscles with the pain and maximum tenderness in the left epigastrium. There is usually a history of chronic gall-bladder disease.

Diverticulitis I have only seen in a clinic. The symptoms are very similar to those of appendicitis except that the condition is almost exclusively in the left side (sigmoid) and is a disease of old age. Volvulus and cancer of the sigmoid are the lesions to be considered in making a diagnosis.

ECTOPIC BEATS, THEIR SIGNIFICANCE AND TREATMENT.*

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Pulse irregularities due to abnormal impulses originating at a point in the auricle or ventricle, other than the pacemaker, is the most frequently observed type of arrhythmia. The ventricular type is more common than the auricular. Through Lewis's¹ experimental work on animals, it is possible by electrocardiographic examination, not only to determine the type but the approximate location of the focus.

The characteristic possessed by the cardiac muscle of rhythmicity, plus an increased local

irritability, is responsible for cardiac extrasystoles. The part played by the nerve mechanism is imperfectly understood. Vagal stimulation, through pressure, deep breathing, and digestive disturbances will in some cases precipitate ectopic beats, while in others sympathetic stimulation through exercise will have the same effect.

THE AURICULAR TYPE.

Premature beats originating in the auricles are distinguished by disturbance of the dominant rhythm. The time interval of the premature beat plus the succeeding beat does not equal two normal beats. In other words, ectopic auricular beats are not followed by a compensatory pause.

Electrocardiograms show, as a rule, inverted P's, especially in leads two and three, in ectopic beats originating in the region of the inferior vena cava and atrio-ventricular node. In those originating near the sino-auricular node, however, the P's are positive and show only minor variations from the normal. In this type the ventricular complex is not affected.

Auricular extrasystoles are an early sign of cardiac failure, and are frequently associated with dilatation of the auricles. It is commonly seen in mitral disease and cardiosclerosis, and is often followed by tachycardia flutter, and fibrillation, and is often observed following the termination of fibrillation by quinidin. Naturally it may be present in frank decompensation. They are usually increased by exercise, and are often brought out when not present during rest. No symptoms are produced other than those of the underlying disease.

THE VENTRICULAR TYPE.

Ventricular ectopic beats may originate either in the right or left ventricle, the former being more common, or in the region of the atrio-ventricular node. The auricular or dominant rhythm is maintained in this type, the premature and succeeding beat equalling two normal beats, the ectopic beat being followed by a compensatory pause, except when they are interpolated between two normal beats. They may be associated with retrograde auricular beats, especially those originating in the vicinity of the atrio-ventricular node.

The electrocardiogram shows a bizarre QRS complex followed by an inverted T, with the P absent or buried in the QRS. The chief deflection in the QRS group in lead two is positive in the right ventricular type and negative in the left,

*Read before the Fiftieth Annual Meeting of the Florida Medical Association, held at Jacksonville, May 15, 16, 1923.

the transition being rather abrupt. Premature beats originating near the atrio-ventricular node show deflections approaching the normal.

From a clinical point of view two types of ventricular extrasystoles are encountered. First, those showing a disposition to occur while at rest when the pulse rate is slow, and that are abolished or decreased by exercise. Most cases showing an occasional ectopic ventricular beat belong to this class. They are harmless, and at least are not associated with any serious cardiac pathology, and show no special disposition to progress. In fact they are apt to be temporary, and are frequently observed following acute infections, in gastrointestinal disturbances, and occasionally show a tendency to occur as a family characteristic. Ectopic beats are probably too frequently considered to be the effect of gastrointestinal disturbances, though it is undeniably true that they may be an etiological factor in their production. This influence is probably reflex, through vagal inhibition or stimulation. It is not a toxic phenomena as ordinarily observed. In the presence of acute infections, it may be either toxic or reflex.

The second type shows a tendency to subside with rest and is markedly increased by exercise. Marked arrhythmia is frequently noted, covering a period of many years. In other instances they are observed as an occasional skip in various cardiac diseases. It is possible that the persistent type may be associated with the presence of scar tissue, following some focal infection or accident to the cardiac muscle, though they have never been definitely demonstrated. This may account for the remarkable constancy of form of some electrocardiographic curves.

This type is usually associated with demonstrable cardiac pathology. It is frequently observed in cardiac failure of the congestive type, and dilatation of the ventricles. Cardiosclerosis is probably more frequently found in cases showing premature ventricular beats, though they occur in cardiorenal, valvular diseases, and aneurism of the ventricles², and at times in cases showing a high degree of compensation. Strickland-Goodall has called attention to the frequency of left ventricular extrasystoles in cardiac failure in aortics³.

The association of ectopic beats with other types of arrhythmia is frequently observed. At times both the auricular and ventricular types are found in the same curves. Ventricular ectopic

beats are frequently seen in auricular fibrillation, and occasionally in atrio-ventricular and intra-auricular block, and bundle branch block.

The symptoms produced by premature ventricular beats are usually insignificant. Individuals quickly become accustomed to the occasional "skips" and usually ignore them. Others develop anxiety states of varying degree. Substernal and precordial pain or distress are frequent complaints. It is often described as a flopping or hard beat. Real embarrassment of the circulation may occur in bigemina, with apparent halving of the pulse rate, where every other beat is premature, and quickly follows a normal beat, especially if marked cardiac pathology is present.

The diagnosis is most accurately made by electrocardiographic examination. However, it is possible to differentiate most cases by means of venous and arterial tracings. Without such instruments it is largely a matter of conjecture, and in many instances impossible to make a correct diagnosis. Occasional ectopic beats can at times be classified by such crude methods as timing with a watch or the foot.

The arrhythmias most difficult to distinguish are fibrillation with a slow pulse, atrio-ventricular block, intra-auricular block, atrio-ventricular nodal escape, and alternation. Fibrillation with a slow pulse rate, not produced by digitalis, is not often encountered, but may be extremely difficult to differentiate from auricular premature beats, without instrumental aid. Ventricular ectopic beats, producing bigemina, in which the ectopic beats occur immediately following the normal and fail to produce a radical pulse, may be confused with atrio-ventricular block, but can usually be detected by the stethoscope. Intra-auricular block is impossible to differentiate without the aid of electrocardiographic curves. Escape of the atrio-ventricular node may stimulate the ventricular type of premature beats, and may produce a bigemina that is impossible to distinguish without instrumental aid.

The treatment of arrhythmias due to ectopic beats depends upon the type found. In the auricular type digitalis and rest usually relieves the symptoms and at least reduces the frequency of the premature beats. The type of ventricular beats that occur during rest is, as a rule, aggravated by digitalis. It may or may not be influenced by atropine. Reassurance, with an explanation of the harmless character of the trouble, if the beats are not excessive, is as a

rule all that is necessary. In the second type, if signs of cardiac failure or dilatation are present, digitalis is indicated. Quinidin is being used with success in cases presenting marked arrhythmia due to ectopic ventricular beats that are well compensated. Ten grains daily is usually sufficient to control the disorder, and may be taken for a considerable period without danger. Many of the cases treated with quinidin, however, show a prompt return as soon as the drug is discontinued.

(1) *The Mechanism and Graphic Registration of the Heart Beat*. Thomas Lewis, New York, 1921.

(2) *Aneurism of the Left Ventricle*. Morris Kahn, *Am. Jr. Med. Sc.*, Vol. CLXIII, No. 6, Philadelphia.

(3) *Premature Contraction, and Its Significance*. J. Strickland-Goodall, *N. Y. M. J.*, 115:204, February 15, 1922.

APPLICATION OF DIAGNOSTIC METHODS.*

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Da Costa, in his "Physical Diagnosis," quotes W. W. Keen, who says: "With all our varied instruments of precision, useful as they are, nothing can replace the watchful eye, the alert ear, the tactful finger and the logical mind which correlates the facts obtained through all these avenues of information and so reaches an exact diagnosis." No word could be added to the above quotation which could express more clearly this thought. Though this statement was made long before we reached our present era of laboratory and instrument diagnosis, it is as much a truth today as then. It must be understood in the beginning that no statement is made or thought expressed in this paper without being mindful of Keen's observation and its application to present-day diagnosis.

Today, diagnosis, in its broadest sense, has passed the scope of a single individual. The methods substituted are either a referring of various phases of the diagnostic studies to the different specialists in their different locations, each man arriving at his conclusions independently, and finally having these conclusions correlated by a single individual—the diagnostician—

or by assembling these various specialists under one roof and having the sum total of information go with the patient until the studies are completed and the conclusions studied by one or all the group. In other words, the doctor seeks the aid of specialists if needed, correlates his facts and draws his conclusions, or the group studies the case as a whole and finally the individual, under whom the case comes, makes the detailed diagnosis and directs the treatment. By the first method, perhaps the patient has, in some cases, the benefit of more detailed study by a single individual and more of a personal contact; the second method has the advantage of careful observation by several men.

Out of this has evolved another method which seems to have all the advantages and none of the disadvantages of either of the other methods. Briefly outlined, this method is where the internist makes his examination, collects all laboratory reports, seeks the aid of specialists, correlates his facts, finally making his diagnosis and then presenting his case to the closely organized group for discussion. This method seems to bring about the highest percentage of correct diagnoses and determines more correctly the proper handling of the case.

Lennic's discovery of the stethoscope marked the beginning of careful chest examination. No one underestimates its value and no one would suggest discarding it. This is an improved method of "transmitting impressions to the alert ear." Yet, today, who would consider a chest examination thorough or complete without repeated examination of the sputum and a careful roentgenographic examination. These are merely additional facts to be obtained and correlated by the logical mind. Who has not had a chest case give a negative or misleading history, even though carefully taken, or has had physical findings to be of such little significance as to be entirely discounted, even perhaps negative X-ray findings, only to find tubercle bacilli repeatedly in the sputum? Certainly, neither the laboratory nor the X-ray should make the diagnosis first, but it should confirm as often as possible.

R. L. T., male, age 24, married. Family history negative. Past medical history negative except for pleurisy in left side in 1915. Chief complaint: Pain in left side from above axilla down to border of ribs and across small of back. Rheum-

*This paper was intended for presentation before the Fifth Annual Meeting of the Florida Medical Association, held at Jacksonville, May 15, 16, 1923, but owing to an overcrowded program the essayist did not have an opportunity.

atism in right hip. Duration of complaint, three years. Physical examination showed little except slight dullness over left upper, and an occasional indeterminate rale with slight prolonged expiration. Diseased tonsils. Laboratory examination negative except sputum which was positive for three examinations after repeated negatives.

One would, by no means, suggest blood chemistry examination on every case, yet it is the difficult, the puzzling case where we need all our aids to diagnosis. It sometimes happens only by thoroughness is the value of the special studies demonstrated, not by the history nor by the ordinary methods of physical examination.

Recently, a known case, a doctor's wife, had puzzled both the internist and the surgeons. No one agreed as to the diagnosis and, as usual in such cases, numerous diagnosis were made. Some one suggested chemical metabolism. Two tests were done, one to determine the amount of cholesterol, and the other the sugar in the blood. The first was normal. The second showed a high blood sugar content. The urine was negative. A diagnosis of cancer of the pancreas was made and an exploratory operation advised. This was done and the correctness of the diagnosis revealed.

A few years ago Basal metabolism was attempted only in the largest hospitals or clinics because of the expensive, cumbersome apparatus required and the complexity of the technique. Today, an accurate portable or a small stationary apparatus are available at a comparatively small sum. With very little training any competent technician can determine accurately the metabolism rate. Despite this, many thyroid cases are operated on without Basal metabolism determination. Whatever may be one's opinions regarding treatment or operation on all enlarged thyroid glands, regardless of the metabolic rate, certainly no case can be as intelligently handled as when Basal metabolism tests are made. Do we not owe it to our patients to give them the advantage of every known scientific advancement?

We report two cases which gave a clinical picture of mild hyperthyroids. Enlarged thyroid, nervousness, choking. Had been given a diagnosis of hyperthyroids and thyroidectomy advised. Picture was suggestion of hyperthyroidism. Basal metabolism done and checked again.

G. H. W., age 36, married, female. Family history negative. Past medical history negative except for pneumonia at sixteen or seventeen years of age. Tonsilectomy had been done. Chief complaint: Drawing in left side of face. Choking and nervousness.

Physical findings negative except poor teeth which X-ray showed were abscessed, and enlarged thyroid gland. Thyroidectomy had been advised. Two Basal metabolisms done and both were 13 per cent below normal. Abscessed teeth removed and choking disappeared and nervousness relieved.

H. M. B., age 40. Family history negative. Past medical history negative except diseased tonsils and malaria twelve years ago. Chief complaint: Enlarged thyroid gland and nervousness. Basal metabolism done and found to be 3 per cent below normal. Tonsilectomy done. Nervousness disappeared.

May a word of caution be spoken here? The mere doing of laboratory or technical diagnostic studies does not mean an intelligent interpretation of these findings. The internist should have at least a working knowledge of all investigations he has made, even if done by a competent technician. The mechanical findings are mere figures and can often be misunderstood unless the technique, the why, and a study of the interpretation is a part of the knowledge of the diagnostician.

A careful painstaking history cannot be emphasized too often; that history should be written in detail and reviewed each day with a view to adding information, obtained from the patient, as his memory becomes refreshed or his confidence in the taker more formally established.

SUMMARY.

First—A careful history, a complete and painstaking examination is the first requisite to diagnosis.

Second—The patient is entitled to every known aid to make a correct diagnosis.

Third—The internist or diagnostician should have a thorough knowledge of all technical studies necessary for diagnosis.

Fourth—In the final analysis it is the analytical mind that correlates the facts and deducts the essentials that make for a correct diagnosis.

REPORT OF A CASE OF MYELOGENOUS LEUKEMIA.*

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In November, 1919, Mr. J. G., white, male, 51, weighing about 185 pounds, strong and healthy appearing, was brought into my office. He had been struck by a passing car and thrown from his wheel. There were a few abrasions on the face, chest, arms and chin, but these were not sufficient to account for the extent of the shock in a man of his temperament.

He complained of a pain under the mid-sternum but I did not find any fracture. The pain continued for about two weeks, then improved enough so that he made a settlement with the driver of the car without having an X-ray examination as I had suggested.

As soon as the minor injuries were healed he continued his work and I did not see him again for several months. When I saw him again I did not recognize him for the same man. He looked like a skeleton of his former self, thin, pale and very much older.

In December, 1920, he had a cough which caused his relatives to fear tuberculosis. I went over his chest very carefully, but failed to find any tuberculosis symptoms. There was a slight bronchitis which promptly cleared upon treatment. At this time he was staying twelve miles away and I seldom saw him.

During the following months I occasionally saw him on account of indigestion, but there was always a history of some indiscretion in diet and the trouble would disappear after cathartics were given.

In October, 1921, he came in complaining of shortness of breath, great soreness under sternum and in left side, with inability to eat without great discomfort. He said his eyes had gotten so bad he could scarcely see. He had had a cataract removed from his right eye in June. The spleen extended to the midline and down into the pelvis, liver enlarged, and heart overtaxed. He weighed about 140 pounds, was very pale and anemic.

After a blood specimen was taken for a Wassermann I started him on iron, strychnine, arsenic with mercury protiodide $\frac{1}{4}$, t. i. d.; one teaspoonful of epsom salts each morning and a teaspoon of sodium bicarbonate in glass of water

before dinner and supper. When this treatment had been used about a week with marked improvement a negative report came in from the state laboratory. Suspecting that this was one of the clinically pos, lab. neg. cases, the treatment was continued without making the careful blood examination that would have given the correct diagnosis.

After a few weeks he discontinued treatment and returned to work. In two months he needed rest and treatment again. He kept alternating between rest and work until December, 1922, when, while night-watching he fell unconscious some time about 2 or 3 a. m., and laid helpless until workmen found him in the morning still unable to speak. The ashy gray pallor and stertorous breathing had given the impression to the workmen that he was dying. When I saw him, a slight facial paralysis as well as a slight motor paralysis of the right side was evident. The whole body was swollen, the legs as large as the thighs should have been.

A blood smear was sent to Dr. Youman's laboratory in Miami. The report: Neutrophiles, 46 per cent; esinophiles, 5 per cent; lymphocytes, 18 per cent; large mononuclears, 1 per cent; transitional, 1 per cent; eosinophilic-myelocytes, 22 per cent; neutrophilic-myelocytes, 7 per cent. It would seem that the white cells outnumber the red, which left no doubt that it was a case of myelogenous leukemia.

During the first week in January he had severe hemorrhages from the kidneys, bowels and nose which seemed to help rather than hinder him.

I took him to Dr. J. L. North for X-ray treatment, but continued the mercury, arsenic, strychnine and at the suggestion of Dr. DuPuis, of Lemon City, I used quinine. The combined treatment has temporarily relieved all pain and tenderness in the abdomen, reduced the spleen to almost normal size. The patient has gained fourteen pounds in weight, has a good appetite and digestion and gained strength to where he is asking when he can go to work. There is still some tenderness at the upper end of the leg bones. The laboratory report from blood taken May 12th was as follows: Neutrophiles, 71 per cent; esinophiles, 2 per cent; lymphocytes, 18 per cent; large mononuclears, 1 per cent; transitional, 1 per cent; eosinophilic myelocytes, 7 per cent; neutrophilic myelocytes, 3 per cent; total white count, 8,600. Microblasts, 4 per cent; normal blasts, 2 per cent; megloblasts, 1 per cent. There

*Read before the fourth annual meeting of The Florida Railway Surgeons' Association, held at Jacksonville, May 14, 1923.

appears to be a normal proportion between the red and white cells.

The question of interest to the railway surgeon is what relation has the injury to the disease. Dorland defines myelogenous leukemia as a condition that is due to a disease of the spleen and bone marrow. Stephens, in his practice of medicine of 1923, says nothing definite is known of its cause; inheritance, unsanitary conditions, antecedent infection and traumatism apparently have no etiological influence on the one hand, the disease appears to be related to the infectious processes, and on the other hand to tumor formation. Sojous, in *Analytical Medicine*, published in 1918, says: "Up to the present time no definite evidence has been produced to show that injury bears a cordial relationship to the disease. If we take the known facts, namely, that blood is formed from red bone marrow, that red bone marrow is found in the diploe of cranial bones in the cancellous tissue of vertebræ, ribs and sternum, also in the ends of long bones, and then check up on the symptoms, tenderness and pain on pressure over the sternum, changes in the bone marrow of the long bones and sternum. It certainly looks reasonable that an injury at the site of blood formation might interfere with normal development of the blood cells.

PROPAGANDA FOR REFORM.

COLLOSOL CALCIUM.—E. E. Prest (Brit. Med. J., January 14, 1922) recommended a new "collosol" brand of so-called colloidal calcium for the treatment of tuberculosis. T. C. Graves (Lancet, November 4, 1922) discussed "Colloidal Calcium in Malnutrition, Chronic Sepsis and Emotional Disturbances." The publications of Prest and Graves serve as uncritical endorsements of another addition to the Collosol preparations. The conclusions reached by Graves concerning the beneficial action in the treatment of "Emotional Disturbances" do not seem justified by the character of the evidence he presents. Such results as he reports are common experiences without the use of medication. There is no basis, either in theory or in the evidence presented, for administering a calcium salt in colloidal form; if advisable, soluble compounds of calcium such as the lactate and chlorid may be administered hypodermically. Thanks to the timely report of the Council on Pharmacy and Chemistry, the Collosol preparations are not being pushed in the

United States, though they are being actively exploited in England. (*Jour. A. M. A.*, Aug. 4, 1923, p. 409.)

C-O-M NOT ACCEPTED FOR N. N. R.—The Council on Pharmacy and Chemistry reports that "C-O-M" is the proprietary, noninforming name under which the H. D. Frees Co., Chicago, exploits a preparation which is claimed to be the solution of magnesium citrate of the U. S. Pharmacopœia, but to have the advantage over the official preparation in that it keeps indefinitely. The Council refused recognition to "C-O-M" because (1) the application of a proprietary name to a pharmacopœial article is irrational and a detriment to rational therapy; (2) as solution of magnesium citrate is readily prepared fresh and of standard quality by pharmacists, the claim of stability is not a sufficient warrant for the use of a proprietary name for an official article; (3) the therapeutic claims for "C-O-M" are unwarranted, and (4) the advertising propaganda is likely to lead to the excessive and ill-advised use of the preparation by the public. (*Jour. A. M. A.*, August 11, 1923, p. 493.)

TWO MORE ELECTRIC DIAGNOSES.—A physician reports that one of his patients became alarmed by a diagnosis of generalized carcinoma made by an osteopath who is a disciple of Albert Abrams. In order to test the diagnostic ability of this disciple of Abrams the physician had the patient send the Abrams disciple a specimen of blood (which was taken from a young rooster who had been confined to his coop since birth) for diagnosis. The diagnosis which was received showed syphilis, gonorrhea, generalized carcinoma, sarcoma of the spine, chronic malaria and diabetis. Another physician reports a diagnosis made by an Abrams follower on a man who is working and by no means ready to die. The diagnosis showed "diminished resistance" (an Abrams euphemism for syphilis), "carcinoma of gall-bladder," "streptococcus," "sarcoma of both kidneys, right worse," "tuberculosis both lungs, upper right and middle left," "sarcoma," "gall-stones," "malaria," and "pneumonia." (*Jour. A. M. A.*, August 11, 1923, p. 493.)

BACILLUS ACIDOPHILUS THERAPY.—A method for the preparation of *Bacillus acidophilus* milk has been published by Rettger and Cheplin (*Arch. Int. Med.*, Vol. 29:357, (March) 1922). Microscopically, *Bacillus acidophilus* closely resembles the *Bacillus bulgaricus*, but cultural methods of distinction have been proposed. The thera-

peutic value of the various lactic acid ferment preparations is discussed in *New and Nonofficial Remedies*, 1923. While recent publications give evidence in favor of *Bacillus acidophilus* therapy, W. H. Morriss expresses the belief that whatever beneficial results occurred in the case reported by him were due to some other factor than the actual transformation of the common intestinal bacteria into the *acidophilus* type of organism. (*Jour. A. M. A.*, August 11, 1923, p. 494.)

TAPEWORM REMEDIES.—Oleoresin of aspidium and pelletierin tannate are the remedies of choice, the first being more popular. To give the remedies the best chance for action, the intestinal contents should be reduced as much as possible by restriction of solid food and evacuation before the treatment. On the morning of the treatment the patient should stay in bed and be given from 6 to 8 gm. of oleoresin of aspidium divided into as many capsules in the course of 10 to 15 minutes. Two hours later a saline cathartic should be administered and repeated every two hours until thorough evacuation has been secured. (*Jour. A. M. A.*, August 11, 1923, p. 495.)

THE CHLORIN ANTISEPTICS.—The essential attributes of Surgical Solution of Chlorinated Soda-N. N. R. is a definite but mild alkalinity, hypertonicity and presence of the correct amount of sodium hypochlorite. Because hypochlorite solutions are unstable and their active component is not available in solid form, chloramin-T, dichloramin-T and halazone were evolved. The first two have been received as worth-while additions to our materia medica. Because the three products contain their chlorin in its less stable modification, the composition and purity of these products have been watched by the A. M. A. Chemical Laboratory. Recently, P. N. Leech of this laboratory reported on the quality of the market supply of American-made chloramin-T, dichloramin-T and halazone, which are described in *New and Nonofficial Remedies*. Out of eight specimens of chloramin-T, one was considerably substandard, two were slightly substandard and five were satisfactory. The chloramin-T tablets, chloramin-T pastes and an aromatic powder were satisfactory. Two out of four specimens of a surgical powder were markedly decomposed. All the specimens of Council-accepted dichloramin-T complied with the standards. Re-examination of specimens of the chloramin ex-

aminated five years previously showed that chloramin-T and halazone are quite stable, but the dichloramin-T specimens had decomposed somewhat. Leech believes that both the hypochlorite preparations and the chloramins are active oxidizing agents because of the positively charged chlorin atom which they contain, and that their antiseptic action depends on this. He determined that the oxidizing power of chloramin-T is much greater in neutral than in even slightly alkaline solutions. From this it is apparent that one strength of a solution of pure chloramin-T may be active as a germicide while a solution of the same strength containing sodium bicarbonate may be ineffective. (*Jour. A. M. A.*, August 18, 1923, p. 581.)

IODIN AS A PROPHYLACTIC FOR GOITER.—The conclusion of Marine and Kimball that the administration of iodine constitutes an efficient and safe method of preventing goiter is being amply confirmed. In Switzerland the results appear even more favorable than those reported in this country and the goiter commission of Switzerland has recommended that this method of goiter prevention be instituted as a public health measure throughout the republic. In this country the schools of Akron, Kent and Revana counties, in Ohio, have been using the method as a routine. It has been employed in Berea and Warren, Ohio, and extensively administered in some of the large factories in Cleveland. This year the schools in East Cleveland, Shaker Heights, Warren, Niles and Findlay, Ohio, Grand Rapids, Mich., and Hammond, Ind., are using tablets, each containing 10 mg. of iodine in the form of an organic iodide and each girl takes one tablet a week throughout the year.—(*Jour. A. M. A.*, August 18, 1923, p. 582.)

ADMINISTRATION OF IODIDE FOR GOITER.—For the prophylaxis of goiter, Marine and Kimball employed 2 gm. of sodium iodide given in 0.2 gm. doses daily for ten consecutive school days. This was repeated twice yearly. Marine and Kimball state that this amount of iodide is excessive and that 1 gm. of sodium iodide distributed over a longer period would be better. Sodium iodide may be prescribed in solution, a dose to a teaspoonful. If the patient be furnished with a small quantity of potassium iodide—say 1 gm.—and advised to mix it thoroughly with 1 kg. of ordinary table salt for occasional seasoning of his food at the table, he will get all the iodide that is necessary for prophylactic purposes and in an entirely

unobjectionable manner. (*Jour. A. M. A.*, August 18, 1923, p. 598.)

BISMUTH PREPARATION IN SYPHILIS.—The Council has issued a statement of the present status of bismuth preparations in the treatment of syphilis. In this report the history of the use of bismuth salts in the treatment of syphilis is reviewed, the evidence for the value of bismuth salts as compared with mercury preparations and arsphenamine is considered and the dosage and danger of untoward effects are discussed. The statement of the Council concludes with the following summary:

1. Bismuth preparations have a sufficient experimental basis both for their favorable effects and limitations. The advantage consists in their distinct action on experimental syphilis. The limitations are clear, if one considers the disproportion between the large dose, which is necessary to sterilize an animal, and the small dose, which can be tolerated by man. The available information appears to show that bismuth preparations will not cure syphilis, when used alone.

2. Bismuth treatment is not usually injurious if the necessary precautions (observations for beginning stomatitis, examination of urine, etc.) are observed. Intravenous injection is to be strictly avoided. The therapeutic effect of bismuth is rated by the majority of authors between arsphenamine and mercury. Bismuth compounds may be valuable in cases in which the patients are intolerant to the other drugs used in the treatment of syphilis or resistant to them, as shown by a persistent positive Wassermann reaction. (*Jour. A. M. A.*, August 25, 1923, p. 661.)

THE THYROID HORMONE.—The fact that the iodine-bearing compound, thyroxine, which has been isolated from thyroid tissue, has a marked physiologic potency, has led many persons to speak of it offhand as the "active principle" of the thyroid glands. However, Reid Hunt has carried out tests which indicated that for certain functions at least, thyroxine shows less potency than an equivalent dose of iodine in the form of the entire thyroid gland. One is led to ask, whether the iodized protein fragment represented by thyroxine retains all of the specific physiologic action of the real thyroid hormone. Hektoen, Carlson and Schulhof report that they have detected the presence of a thyroid product, thyroglobulin, in the lymph issuing from the thyroid

gland, but failed to detect the same protein in the blood stream.—(*Jour. A. M. A.*, August 25, 1923, p. 665.)

ALBARGIN NOT ACCEPTED FOR N. N. R.—The Council on Pharmacy and Chemistry declares Albargin inadmissible to New and Nonofficial Remedies because (1) it is an unessential modification of silver nitrate and (2) the therapeutic claims made for it are unwarranted. Albargin is a product of the Farbwerke, vorm. Meister, Lucius and Bruening, Hoechst, a. m., Germany, marketed in the United States by the H. A. Metz Laboratories, New York. It is claimed to be a compound of silver nitrate with gelatose containing 15 per cent of silver. Albargin is claimed to combine the advantages of albumin compounds of silver and of silver nitrate. It is claimed to dialyze through animal membrane and, therefore, to possess far greater power than other albumin compounds of silver. It is claimed to produce neither irritation nor pain. The Council found that the silver of Albargin was not combined with the gelatose, but is in the same condition as the silver of silver nitrate; that it does not dialyze through animal membrane and that its antiseptic value is the same as that of a silver nitrate solution of equal silver content. (*Jour. A. M. A.*, August 25, 1923, p. 677.)

COATING FOR PILLS TO RESIST GASTRIC JUICE.—The attempt to prepare pills, tablets or capsules which will pass the stomach unchanged but which will disintegrate in the intestine has not proved very successful. In the main the attempt has been to coat such pills, tablets or capsules (a) with keratin or phenyl salicylate (salol), (b) with gelatin rendered insoluble by treatment with formaldehyde, and (c) by mixing the drug with wax, solid fats or paraffin. Keratin coating has the objection that the coating is brittle and that it requires the administration of a considerable dose of phenyl salicylate. The difficulty in the coating with hardened gelatin is that, if the treatment with formaldehyde is insufficient, the pills will not pass the stomach unchanged and, if the treatment is prolonged, the coating will not disintegrate in the intestine. Favorable reports have been published of the method of combining drugs such as sodium carbonate, potassium iodide, sodium salicylate, etc., with mutton suet and paraffin or with a mixture of beeswax and castor oil previously melted together. (*Jour. A. M. A.*, August 25, 1923, p. 679.)

DRAFT OF PROPOSED MODEL STATE NARCOTIC LAW.

Under authority of the House of Delegates of the American Medical Association, the Council on Health and Public Instruction undertook the preparation of a model state narcotic law. The following is a working draft of such a law, approved by the Council. This draft is the result of a conference between representatives of the Council on Health and Public Instruction, representatives of various organizations within the drug trade and representatives of other agencies. Upon completion of this draft, the conference referred it back to the several organizations represented for consideration. Criticisms and suggestions are invited, which should be mailed to *The Bureau of Legal Medicine and Legislation, American Medical Association, 535 North Dearborn Street, Chicago, Illinois.*

A MODEL STATE NARCOTIC DRUG LAW.

SECTION 1.—Definitions, as Used in This Act:

(1) *Person*.—The term "person" includes any corporation, association, copartnership or individual.

(2) *Physician*.—The term "physician" means any individual authorized to practice medicine under the laws of this state.

(3) *Apothecary*.—The term "apothecary" means any person authorized to practice pharmacy under the laws of this state.

(4) *Dentist*.—The term "dentist" means any individual authorized to practice dentistry under the laws of this state.

(5) *Veterinarian*.—The term "veterinarian" means any individual authorized to practice veterinary medicine under the laws of this state.

(6) *Manufacturer*.—The term "manufacturer" means a person who by compounding, mixing, or other process of manufacture produces or prepares habit-forming drugs for sale on written orders or who manufactures, produces or prepares any preparation which corresponds to the description enumerated in Section 4 of this act, and does not include an apothecary who compounds habit drugs to be sold or dispensed on prescription.

(7) *Wholesaler*.—The term "wholesaler" means a person who deals in habit-forming drugs on written orders.

(8) *Sale*.—The term "sale" includes sale and offer for sale.

(9) *Dispense*.—The term "dispense" includes distribute, leave with, give away, dispose of and deliver to a person or to his agent to be delivered to him.

(10) *Administer*.—The term "administer" means only administration by a person authorized to administer habit-forming drugs or under his orders by a nurse, hospital attendant, intern or by any other person designated by him.

(11) *Coca Leaves*.—The term "coca leaves" includes coca leaves, cocaine, or any compound, manufacture, salt, derivative or preparations thereof, including any of their

salts or any compound of any of them, but shall not include decocainized coca leaves or preparations made therefrom or other preparations of coca leaves which do not contain cocaine.

(12) *Opium*.—The term "opium" includes opium, morphin, codein, diacetyl morphin (heroin), and any compound, manufacture, salt derivative or preparation of any of them; but the preparations described in Section 4 of this act shall not be deemed to be compounds, derivatives or preparations of opium or of its salts or derivatives.

(13) *Habit-Forming Drugs*.—The term "habit-forming drugs" means coca leaves or opium.

(14) *Written Order*.—The term "written order" means an order on an order form issued by, or other order acceptable to, the Commissioner of Internal Revenue of the United States under the Harrison Narcotic Act.

(15) *Number and Gender*.—The singular includes the plural, the masculine includes the feminine and neuter.

(16) *Harrison Narcotic Act*.—The term "Harrison Narcotic Act," when used in this act, means the act of Congress entitled, "An act to provide for the registration of, with collectors of internal revenue, and to impose a special tax upon all persons who produce, import, manufacture, compound, deal in, dispense, sell, distribute, or give away opium or coca leaves, their salts, derivatives, or preparations and for other purposes"; approved Dec. 17, 1914, as amended.

SECTION 2.—Acts Prohibited: No person shall possess, sell, distribute, administer, dispense or prescribe any habit-forming drugs except as provided in this act.

SECTION 3.—Sale on Written Orders.

(1) A manufacturer, wholesaler or apothecary may sell, distribute or dispense habit-forming drugs on a written order:

- (a) To any manufacturer, wholesaler or apothecary;
- (b) To any physician, dentist, or veterinarian;
- (c) To any public or private hospital;
- (d) To any hospital or institution licensed for the treatment of drug addiction;
- (e) To any person in charge of a laboratory where habit-forming drugs are used for scientific or medical research, but only for such use in such laboratory;
- (f) To any person in the employ of the United States or of this state or any political subdivision thereof, purchasing or receiving the drugs in his official capacity;
- (g) To a captain or proper officer of a ship upon which no regular physician is employed for the use of officers and crew for medical needs of the captain and crew when not in port.

Provided that both parties to the transaction, if required to be registered under the Harrison Narcotic Act, are so registered.

NOTE.—Subdivision (g) is inserted for application to states having ports.

(2) A written order shall be signed by the person giving it or by his duly authorized agent and shall be kept for two years by the person filling it in such a way as to be readily accessible for inspection and shall be subject to inspection by any public officer or employee engaged in the enforcement of this act.

(3) Possession of habit-forming drugs obtained as provided in this section shall be legitimate if possessed

in the regular course of business, occupation, profession, employment or duty of the possessor.

SECTION 4.—Preparations and Remedies:

A person may manufacture, sell, dispense or possess preparations and remedies not otherwise prohibited by law, which contain not more than 2 grains of opium, or more than one-quarter grain of morphin or more than one-eighth grain of diacetyl morphin (heroin), or more than 1 grain of codein, or any salt or derivative of any of them in 1 fluid ounce; or liniments, ointments or other preparations which are prepared for external use only, except liniments, ointments and other preparations which contain cocain or any of its salts or any synthetic substitute for them, provided such remedies and preparations are manufactured, sold, dispensed or possessed as medicines and not for the purpose of evading this act.

SECTION 5.—Professional Use:

(1) *Veterinarians.*—A veterinarian, in good faith, in the course of his professional practice only and not for use by a human being, may prescribe, administer or dispense habit-forming drugs.

(2) *Dentists.*—A dentist, in good faith, in the course of his professional practice only, may prescribe for, administer or dispense habit-forming drugs to patients under his immediate treatment.

(3) *Physicians.*—A physician, in good faith, in the course of his professional practice only, may prescribe, administer or dispense habit-forming drugs.

SECTION 6.—Prescriptions:

(1) Any apothecary may sell or dispense habit-forming drugs to any individual upon a written prescription of a physician, dentist or veterinarian, dated and signed on the day when issued and bearing the full name and address of the patient and the name, address and registry number of the practitioner under the Harrison Narcotic Act. The person filling the prescription must write the date of filling and his own signature upon the face of the prescription, and the prescription must be retained on file by the apothecary filling it for two years so as to be readily accessible for inspection, and it shall be subject to inspection by any public officer or employee engaged in the enforcement of this act.

(2) No such prescription shall be refilled except prescriptions specifying codein, or a preparation containing codein, and no other compound of opium or coca leaves.¹

SECTION 7.—Record to Be Kept: Every physician, dentist, and veterinarian shall keep a record of all habit-forming drugs dispensed by him, showing the amount dispensed, the date, the name and address of the patient, and, in case of a veterinarian, the name and address of the owner of the animal for which such drugs are dispensed or distributed. The record shall be kept for two years from the date of dispensing such drugs so as to be readily accessible for inspection, and shall be subject to inspection by the proper authorities.

¹ This provision is at present contrary to the regulations now in force under the Harrison Narcotic Act and is approved subject to revision of the regulations by the Treasury Department to conform to this provision of the proposed state model law. The conference expressed its belief that every effort should be made to obtain modifications of the existing Treasury Department regulations so that there may be agreement between them and the proposed text of the model law.

SECTION 8.—Label: Whenever an apothecary, pursuant to a written prescription, shall dispense habit-forming drugs or whenever a physician, dentist or veterinarian shall dispense any of such drugs, he shall securely affix to the container of such drugs a label stating in legible English the name and address of the physician, dentist or veterinarian prescribing them and of the apothecary dispensing them and the date when and the name and address of the person for whom or the owner of the animal for which the drug is dispensed.

SECTION 9.—Authorized Possession of Drugs by Individual: A person to whom or for whose use any habit-forming drug has been dispensed by an apothecary, physician or dentist, or the owner of an animal for which any such drug has been dispensed by a veterinarian may lawfully possess it in the container delivered to him by the person dispensing the drug.

SECTION 10.—Physical Examination Required: A physician, dentist or veterinarian shall not administer, dispense or prescribe any habit-forming drugs except after a physical examination of the person for whom or of the animal for which the drug is intended.

SECTION 11.—Exemption from Restrictions:

(1) The provisions of this act restricting the possession of habit-forming drugs shall not apply to common carriers or warehousemen or their employees engaged in the lawful transportation or storage of such drugs, or to public officers or employees while engaged in the performance of their official duties or to temporary incidental possession by employees or agents of persons lawfully entitled to possession, or by persons whose possession is for the purpose of aiding public officers in the performance of their official duties.

(2) This act shall not apply to acts done, or to habit-forming drugs possessed, in the course of interstate or foreign commerce.

SECTION 12.—Drugs Delivered to Local or State Department of Health: All drugs that have been seized and judicially determined to have been unlawfully possessed or the title to which has ceased and which have come into the hands of a peace officer, shall, upon the direction of a court or magistrate, be delivered to the department of health, which shall keep record of its receipt, and shall be delivered by it to the collector of internal revenue for the district in which the drugs were seized, from whom a receipt shall be required.

SECTION 13.—Use of Federal Forms: Whenever by this act any record is required to be kept or any order blank or prescription to be used, a record kept on any order blank prescription used under the Harrison Narcotic Act or under rules or regulations made thereunder shall be sufficient fulfillment of the requirement of this act.

SECTION 14.—Revocation of Licenses:

(1) On conviction of any physician, dentist, veterinarian or apothecary for wilful violation of any of the provisions of this act, a copy of the sentence and of the opinion of the court or magistrate, if any be filed, shall be sent by the clerk of the court, or by the magistrate, to the board or officer having power to suspend or revoke the license or registration of the person convicted, for such action as the board or officer deems proper.

(2) At the request of such board or officer, the clerk or magistrate shall send to such board or officer a transcript of the record or of the proceedings in a court not of record, and such portion of the evidence as may be requested.

SECTION 15.—Penalties: A violation of any of the provisions of this article shall constitute a misdemeanor.

NOTE.—No definite penalty is included, as the question of how severe the penalty should be is left to each state. It is usual in the states to make a violation a misdemeanor, and usually the penalties are fixed in the state statute. Sometimes it is enough to say that a violation "shall constitute a misdemeanor," depending upon a provision in the penal law of the state, as in New York, fixing the penalty for misdemeanor, but it will usually be found advisable to fix the penalties expressly in the statute.

SECTION 16.—Enforcing Authority:

NOTE.—No particular enforcing authority has been insisted on, since the existing statutes show that different states have different opinions as to the proper enforcement. Furthermore, if the state health authority is made the enforcing authority, it will be necessary in each state to use the proper term to describe that authority, sometimes the department of health, sometimes the health commissioner or board of health. In some cases a department of public safety or commissioner of public safety will be the proper enforcing authority. In any case, however, the power to make rules and regulations should be phrased as follows:

"The department may make rules and regulations necessary for the enforcement of this act, but such rules and regulations shall be kept in conformity with the rules and regulations made under the Harrison Act."

SECTION 17.—Short Title: This act shall be known and may be cited as "The Narcotic Drug Act."

MEMORANDA

1. TITLE.—The committee has judged it best not to propose any title for the act, since the requirement in state constitutions respecting title are dissimilar.

2. ADMINISTRATION.—The committee does not recommend that any definite state agency, such as the health authority, administer the act, but leaves this question to the choice of each state. It recommends that the bill be reviewed carefully after the administrative authority has been determined upon to be sure that the proper terms are used to designate the administering authority in the bill.

3. DEFINITIONS.—Many of these will be unnecessary in certain states. For example, Section 1 (15) will be unnecessary in a state like New York, as it is already included in the general construction act. The definitions of physician, apothecary, dentist and veterinarian will need to be extended in most states by a reference to statutes which provide for the licensing of these professional persons in order to get a complete description. For example, in New York the term "physician" would have to be defined as follows:

"The term 'physician' means a licensed practitioner of medicine as defined by article eight of this chapter," etc. In Massachusetts the statute refers to a special chapter of the revised laws which describes "druggist, apothecary or pharmacist," the three words being used. In Massachu-

setts, physicians, dentists and veterinarians are defined as persons "duly registered and authorized to practice their profession." Pennsylvania describes them as "licensed physician, dentist or veterinarian," without definite reference. It may be necessary to add definition in certain cases. For example, in New York the term medicine is defined in the public health law, Section 236 (9), so that a similar definition would be advisable here or a reference to the public health law definition, in order to make sure that the same thing was intended. In other states, which have not for other purposes defined medicine, this would seem to be unnecessary.

Since the conference group agreed to limit its discussion and proposals to those features of legal restriction and control which are already embodied in the federal (Harrison) act and the regulations under this act, and, since the representation of the medical profession in the conference was small and not authorized to express opinions upon medical practice and social or relief measures, ancillary to narcotic drug control, the suggested uniform state law as presented above makes no mention of two elements essential to an adequate state program for prevention and relief, namely, provision for commitment of addicts and treatment of addicts by private practitioners. Whether or not a state enacts such a law as is here proposed there will continue to be felt, by those who come in contact with the administration of the Harrison Narcotic Law, a need of definite provision for compulsory or voluntary commitment of addicts for treatment, and some policy will have to be established and followed which will prevent the small minority of physicians who are willing to abuse their professional privileges for profit from continuing for indefinite and unnecessarily long periods to supply the drug to addicts who do not require it for the treatment of disease and to relieve suffering, ostensibly with the object of accomplishing a safe and gradual withdrawal and cure.

Although the American Public Health Association, at its meeting in November, 1921, expressed the opinion that the narcotic drug question concerned chiefly the police and the practice of medicine and was not properly a public health question, the probability of having the department of health of states designated as the administrative authority responsible for carrying out the intent of state law in this field, justifies calling attention of professional health workers to the efforts of representatives of the various interested groups to bring about a desirable simplicity and uniformity of legislation.

The Journal of the Florida Medical Association

Owned and published by the Florida Medical Association.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of Congress of October 3, 1917; authorized October 16, 1918.

Published monthly at St. Augustine and Jacksonville. Price \$3.00 per year; 30 cents per single number.

Contributions for publication in this journal, whether scientific papers or reports of County Secretaries, should be typewritten.

Address Journal of the Florida Medical Association, St. Augustine, Florida, or 201-202 St. James Building, Jacksonville, Fla.

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THE REWARD OF GENIUS.

The Canadian government has awarded Dr. F. G. Banting a life annuity of \$7,500 as the discoverer of insulin. In commenting on the award, the *New York Times* points out that professional ethics prevents Dr. Banting from exploiting the commercial possibilities of the remedy and that fame will not pay grocers' bills. "The amount suggested as his honorarium seems large only because such appropriations of public funds are so rare. After all, it is only the interest on \$150,000, and compared with the fortunes made by other inventors—the Fords, the Edisons, the McCormicks and their like—it seems absurdly small." The *Times* urges that the action taken by Canada be an example to the rest of the world. "National governments have a duty in this matter, and one which they rarely have recognized. For the most part they have left the maintenance of scientific research to the generosity of individuals or of the few private corporations which have arrived at a realization of what 'pure science' can do for them. . . . A government, if conducted with sufficient intelligence, would change all this. It would establish facilities for determining just what men had rendered or were likely to render services so widely beneficial that everybody should be expected to pay for them. Then it should make due provision for acquiring a discovery or invention of general benefit and offering it freely to anybody in the country, or in the world, who wants to use it." In a recent address before the British Science Guild, Sir Ronald Ross, noted for his discoveries in relation to the control of malaria, also drew attention to the neglect accorded scientists in his country and the United States:

One of the worst cases was that of W. M. W. Haffkine, who in 1896 discovered the inoculation treatment to cure cholera and plague in India. Not being a medical man, Mr. Haffkine could have patented his discovery and made a fortune. But he set to work to manufacture millions of tubes of this vaccine, and thereby saved millions of lives. An accident occurred, and although he was not responsible, he was made the scapegoat by the authorities in India. He was hounded out of the country, and came home, so to speak, fettered with the chains of Columbus about his feet. He was treated vilely—and he was one of the greatest benefactors of the last century Walter Reed the American, who discovered that yellow fever was carried by the mosquito, was given some menial employment, feeling pulses, administering castor oil, and looking at dirty tongues for a couple of years. And he was allowed to die apprehensive as to how his wife and family could sustain life.

Sir Ronald advised that there should be some state compensation for the research worker who contributes his work for the benefit of all mankind. It is encouraging to find this development of a sound public opinion in favor of properly rewarding scientists. Discoveries such as that of insulin are not made every day or even every decade. The watchdogs of the public treasury need fear no great drain on the public purse from such awards; and, even if there were a drain, the saving in lives and in the cost of disease would more than compensate for the sums expended.—*Jour. A. M. A.*

FLORIDA RAILWAY SURGEONS' ASSOCIATION.

The Florida Railway Surgeons' Association was called to order in its fourth annual meeting at the Seminole Hotel, Jacksonville, on May 14th, 1923, by the president, Dr. L. S. Oppenheimer, of Tampa, who also responded to the welcome address which was delivered by Dr. J. H. Pittman, of Jacksonville.

After the reading and adoption of the minutes of the last regular meeting, a list of applicants for membership was read and they were elected. The gain in membership for the year showed a 30 per cent increase. At present over 50 per cent of the railway surgeons in the state belong to the association.

An amendment was adopted allowing members to retain their membership in the association after retiring from their surgeonship unless such retirement was for unprofessional conduct.

The attendance and interest displayed was far the best in the history of the association.

Dr. H. C. Dozier, of Ocala, was elected president; Dr. J. C. Davis, of Quincy, vice-president; Dr. E. W. Warren, of Palatka, secretary.

Committee on Scientific Program for the next meeting: Dr. Wm. S. Manning, of Jacksonville; Dr. S. C. Wood, of Leesburg, and Dr. G. C. Tillman, of Gainesville. Committee on Arrangements for next meeting: Dr. J. S. McEwan, Orlando, and Dr. Wm. Osenbach, Orlando. Next meeting place, Orlando, Fla.

E. W. WARREN, *Secretary*.

COUNTY SOCIETY NEWS.

COLUMBIA

Dr. R. B. Harkness, together with Mrs. Harkness, spent a delightful two weeks' vacation in Alabama the latter part of August. The doctor declares that Birmingham, Tuscaloosa and other places in Alabama look good, but Florida looks better than ever.

Drs. J. H. Dyer and Herbert Calwell have recently reported for duty at U. S. Veterans' Hospital 63, Lake City. Major Dyer will have charge of the surgical service while Major Calwell will serve on the general medical service.

Drs. L. M. Anderson and R. B. Harkness, Lake City, plan to attend the Washington session of the Southern Medical Association next month.

Dr. T. H. Bates will spend the greater part of October visiting in Texas and Louisiana.

DUVAL.

At the July meeting of the Society, Dr. A. H. Freeman presented an unusually interesting clinical case of double mastoiditis with sinus thrombosis. The patient was examined by those present.

The August meeting of the Society was held at the Seminole Hotel on the 7th. Dr. H. M. Taylor read a paper on "The Causes and Prevention of Otologic Conditions Following Swimming and Diving," by special request. Dr. C. D. Rollins presented a paper on "The Toxemias of Pregnancy."

At the September meeting, Dr. T. Z. Cason read a paper entitled "Diastolic Blood Pressure Observations with Report of an Unusual Case." Dr. R. B. McIvor presented an unusual clinical case of elephantiasis of the penis and scrotum of eight years' duration.

HILLSBORO.

Dr. J. C. Dickinson, President Hillsboro County Medical Society, expects to leave for Chicago in the next few days to attend a meeting of the American Roentgen Ray Society. He expects to be away about two weeks.

Dr. J. J. Saxton has recently returned from New York where he has been doing special work in the New York Skin and Cancer Hospital. He has opened offices in the Citizens Exchange Building, and will confine his work to Dermatology.

Dr. D. D. Martin is in New York attending Pediatric clinics. He expects to be back the latter part of the month.

Dr. W. P. Adamson has just returned from a vacation spent in Asheville, N. C.

Dr. L. J. Efrd is sojourning in Canada, and will return about the first of October.

Dr. A. C. Ives is doing some special work on the chest at Asheville, N. C.

Dr. F. G. Blake has just returned from his vacation spent in Virginia.

Dr. N. L. Spengler is in the city looking over Tampa and its environs with a view of locating in this section.

Dr. J. B. Wallace has just returned from a vacation spent in Canada.

ORANGE.

Dr. Lawrence Ingram, President of the Orange County Medical Society, has just returned from Vienna where he spent the summer doing research work and taking advance courses of the nose and throat under Drs. Hajeck and Newman clinics.

Dr. Meredith Mallory has spent the past month in relaxation at Daytona Beach.

At the August meeting, Dr. R. L. Miller presented an excellent paper on ethmoidal infection and Dr. J. A. Ford on post-operative adhesions.

Dr. C. E. Coffin, of Winter Park, has returned from a vacation of three months spent in Bats Cove, N. C.

POLK.

Dr. C. W. Love, of Lakeland, is in New Orleans doing work in X-ray and gastroenterology. He will return November 1st to become associated with Dr. Herman Watson.

Dr. R. R. Sullivan, of Lakeland, has returned from a three weeks' trip to New York, Philadelphia and Baltimore.

Dr. G. H. Carefoot, of Ft. Meade, has returned from a six weeks' stay in the mountains of North Carolina.

Dr. G. C. Freeman, of the United States Navy, has resigned and located in Lakeland to do internal medicine.

REVIEWS FROM CURRENT LITERATURE

TREATMENT OF HYPERTHYROIDISM.

Groover, Thomas A.; Christy, A. C., and Merritt, E. A.: "A Review of the Treatment of Hyperthyroidism by all Methods, with a Summary of the Authors' Experience with Roentgen Ray Therapy." *The American Journal of Roentgenology and Radiology*, May, 1923, p. 385.

The authors refer briefly to the history of the disease and the early work of Parry, Moebius, Graves, Stokes, Basedow and others. Credit is given to Moebius for first recognizing the condition as a morbid function of the thyroid gland and so placed its therapy on a rational basis.

The basal metabolism rate is taken as the only accurate method of diagnosis and guide to treatment. Treatment is discussed under three heads:

1. General management.
2. Surgical treatment.
3. Roentgen Ray treatment.

Under general management: Importance of rest, proper diet, and their influence on tachycardia, nervous and gastro-intestinal disturbances, are discussed, and it is pointed out that roentgenologists frequently overlook their importance in the treatment of this condition.

The surgical treatment is taken up at length and due credit is given to such eminent surgeons as Koher, Mayo, Crile, and others. The classification

of patients as to surgical risk at the Mayo clinic, based upon their metabolic rate, is emphasized. At this clinic patients are divided into three groups. Those with a rate not increased above 55 per cent are classed as operable; between 55 and 65 as doubtful and best held under observation, especially if there has been a recent loss of weight; those above 70 are classed as inoperable, and rest and medication advised until their general condition is improved. The death rate under surgical treatment, as quoted from the clinics of Mayo and Crile, is from 2 to 4 per cent, and is necessarily higher in the hands of the average surgeon.

Statistics published in 1917 show of 100 cases operated on in 1914 and 1915 at Mayo's clinic, 65.8 per cent as cured, 13.6 per cent markedly improved, and 5.6 per cent slightly improved; 15 per cent as dead from all causes.

Under the head of Roentgen treatment it is pointed out that only since 1898, when the Coolidge tube became available, has accurate work been possible.

The work of Pfahler and his publications are discussed. Dr. Pfahler, in 1915, stated that his results showed that Roentgen Ray treatment

offered equal chance with surgery for cure in hyperthyroidism, and should be used first as it was accompanied by much lower death rate than surgical treatment.

With this opinion the authors are in complete accord and their statistics include 114 cases; 32 are listed as cured; 24 greatly improved and further treatment probably not necessary; 4 have been operated upon, but in only one had radiotherapy been given a sufficient trial; 3 have died, one from influenza, one from tuberculosis and one from hyperthyroidism; 3 cases still have a slightly increased metabolic rate and further treatment is probably indicated.

Their conclusions are as follows:

1. Comparison of results obtained by surgeons and roentgenologists are about equal in permanent cures.
2. Patients should have Roentgen treatment first and thyroidectomy only if they fail to respond.
3. The general management is of first importance, whether ultimate treatment is surgical or Roentgen Ray.

GASTRO-ENTEROSTOMY.

Deaver John B.: "Gastro-Enterostomy." *Surgery, Gynecology, and Obstetrics*, August, 1923, p. 144.

When radical operation (subtotal gastrectomy) is out of the question, anterior gastro-enterostomy is now very seldom done; in fact, the only reason for attempting it is when, because of existing pathology, the posterior method is impossible.

The chief objection to anterior gastro-enterostomy, as usually performed, is the presence of a long loop of jejunum.

Gastro-enterostomy for ulcer was first performed by Doyen in 1893. Ulcer pain is present even without gastric acidity, and furthermore that pain can be controlled (in the presence of gastric acidity), not only by the administration of alkalies, but by actually putting acid into the stomach.

Gastro-enterostomy inadvisedly performed in the absence of a lesion, intrinsic to the stomach or the duodenum, may result in very positive derangement of the digestive function which did not exist before. Gastro-enterostomy for ulcer is both a physiological and an anatomical operation.

With the exception of very small ulcers which can be excised and the closure made without in

any way altering the normal motor function, I think the excision of the ulcer plus a gastro-enterostomy is the accepted procedure for the majority of surgeons, especially when that portion of the digestive tract in which the ulcer is located is freely deliverable. Since ulcer of the duodenum very rarely develops into cancer, it is not so imperative to destroy or remove this lesion, although perforation and hemorrhage must be kept in mind as possible complications, the former occurring in comparatively high percentage of cases.

Gastro-enterostomy alone is indicated in cicatricial obstruction of the pylorus and in extensive, benign ulcerative disease of the pyloric end of the stomach, where the condition of the patient will not warrant a more extensive operation.

Gastro-enterostomy alone is indicated in large ulcers involving much of the lesser curvature or of the posterior wall of the stomach, with adhesions to the liver or the pancreas, which forbid excision or subtotal gastrectomy.

Gastro-enterostomy alone, I would also say, is indicated in gastric or duodenal ulcer with recurrent hemorrhage which forbids removal of the ulcer.

Gastro-enterostomy is rarely necessary in the operation for saddleback ulcer of the lesser curvature causing hour-glass constriction as circular resection suffices in practically all cases; but it may occasionally be best to make a gastro-enterostomy after the circular resection. Gastro-enterostomy alone in carcinoma is not by any means a very satisfactory procedure, yet sometime it does prolong life a short time.

I do not believe that any operation for peptic ulcer will give uniformly satisfactory results unless primary foci of infection are sought for and removed. I am fully in accord with my medical friends, that the acute and the subacute peptic ulcers belong to them, but when they become chronic, which I believe the most of them do, they are then surgical and to treat them medically is to court disaster.

I cannot help repeating what I have so often said that it is after operation that the medical treatment of ulcer is in place. The cooperation of the internist with the surgeon is necessary following operation; for too frequently a good surgical result has been forfeited because of dietetic indiscretions of the neglected patient.

NEW AND NONOFFICIAL REMEDIES.

PROTEIN MIXTURES FOR DIAGNOSIS. — Mixtures of two or more pollen, epidermal or food protein preparations. These mixtures are supplied in order that the number of skin tests to determine sensitiveness to proteins may be reduced. If sensitiveness to a given protein mixture is found, then tests are made with the individual proteins contained in the mixture. (See Pollen and Epidermal Extracts and Biologically Reactive Food Proteins, New and Nonofficial Remedies, 1923, p. 234.)

GROUP ALLERGENS DIAGNOSTIC-SQUIBB. — A mixture of two or more allergens-Squibb in equal proportions. These protein mixtures are used to determine sensitiveness to proteins (see preceding article, Protein Mixtures for Diagnosis). Group Allergens-Squibb are marketed in vials containing 0.025 gm. The following Group Allergens-Squibb have been accepted: Group Allergens-Squibb Type I (beet, carrot, parsnip, radish, turnip); Group Allergens-Squibb Type II (cabbage, celery, lettuce, onion, spinach); Group Allergens-Squibb Type III (artichoke, asparagus, cauliflower, rhubarb, string bean); Group Allergens-Squibb Type IV (cucumber, eggplant, pumpkin, squash, tomato); Group Allergens-Squibb Type VI (apricot, cherry, peach, plum, prune); Group Allergens-Squibb Type VII (cantaloupe, grapefruit, lemon, orange, watermelon); Group Allergens-Squibb Type VIII (apple, banana, pear, pineapple, fig); Group Allergens-Squibb Type IX (almond, chestnut, filbert, hazelnut, peanut); Group Allergens-Squibb Type X (black walnut, Brazil nut, English walnut, hickory nut, pecan); Group Allergens-Squibb Type XI (barley, buckwheat, corn, oat, rice); Group Allergens-Squibb Type XII (beef, goat, horse, pork, mutton); Group Allergens-Squibb Type XIV (chicken, duck, goose, guinea-hen, turkey); Group Allergens-Squibb Type XV (bluefish, codfish, haddock, halibut, mackerel); Group Allergens-Squibb Type XVI (butterfish, salmon, sea bass, sole, whiting); Group Allergens-Squibb Type XVII (clam, oyster, crab, lobster, scallops, shrimp); Group Allergens-Squibb Type XVIII (black pepper, ginger, mustard, paprika, vanilla); Group Allergens-Squibb Type XIX (cocoa, coffee, tea); Group Allergens-Squibb Type XX (egg—all proteins, cow's milk—all proteins, goat's milk—all proteins); Group Allergens-Squibb Type XXI (cat—hair, cow—hair,

dog—hair, horse—dander, rabbit—hair); Group Allergens-Squibb Type XXII (chicken, duck, goose); Group Allergens-Squibb Type XXVI (micrococcus catarrhalis, pneumococcus I, pneumococcus II, pneumococcus III, pneumococcus IV); Group Allergens-Squibb Type XXVII (staphylococcus aureus, staphylococcus albus, staphylococcus citreus, streptococcus pyogenes, streptococcus viridans). E. R. Squibb & Sons, New York.

POLLEN ANTIGENS-LEDERLE.—In addition to the products listed in New and Nonofficial Remedies, 1923, p. 239, the following have been accepted: Annual Salt Bush Pollen Antigen-Lederle; Bermuda Grass Pollen Antigen-Lederle; Cocklebur Pollen Antigen-Lederle; Johnson Grass Pollen Antigen-Lederle; Mountain Cedar Pollen Antigen-Lederle; Mugwort Pollen Antigen-Lederle; Oak Pollen Antigen-Lederle; Orchard Grass Pollen Antigen-Lederle; Perennial Rye Grass Pollen Antigen-Lederle; Rabbit Bush Pollen Antigen-Lederle; Redroot Pigweed Pollen Antigen-Lederle; Russian Thistle Pollen Antigen-Lederle; Spiny Amaranth Pollen Antigen-Lederle; Yellow Dock Pollen Antigen-Lederle. Lederle Antitoxin Laboratories, New York. (*Jour. A. M. A.*, Aug. 4, 1923, p. 393.)

PROTEIN EXTRACTS DIAGNOSTIC-P. D. & Co.—Protein extracts in the form of paste, the base of which is a mixture of glycerin and powdered boric acid. One part represents one part of original material. For a discussion of the actions, and uses and dosage, see Pollen and Epidermal Preparations and Biologically Reactive Food Proteins, New and Nonofficial Remedies, 1923, p. 234. Protein Extracts Diagnostic-P. D. & Co. are marketed in collapsible tubes containing sufficient material for fifty tests. The following products have been accepted: Almond Protein Extract Diagnostic-P. D. & Co.; Apple Protein Extract Diagnostic-P. D. & Co.; Asparagus Protein Extract Diagnostic-P. D. & Co.; Banana Protein Extract Diagnostic-P. D. & Co.; Barley Protein Extract Diagnostic-P. D. & Co.; Bean (Lima) Protein Extract Diagnostic-P. D. & Co.; Bean (Navy) Protein Extract Diagnostic-P. D. & Co.; Bean (String) Protein Extract Diagnostic-P. D. & Co.; Beef Protein Extract Diagnostic-P. D. & Co.; Beef Serum Protein Extract Diagnostic-P. D. & Co.; Beet Protein Extract Diagnostic-P. D. & Co.; Blackberry Protein Extract Diagnostic-P. D. & Co.; Black Pepper

Protein Extract Diagnostic-P. D. & Co.; Black Walnut Protein Extract Diagnostic-P. D. & Co.; Bluefish Protein Extract Diagnostic-P. D. & Co.; Brazil Nut Protein Extract Diagnostic-P. D. & Co.; Buckwheat Protein Extract Diagnostic-P. D. & Co.; Bitternut Protein Extract Diagnostic-P. D. & Co.; Cabbage Protein Extract Diagnostic-P. D. & Co.; Cantaloupe Protein Extract Diagnostic-P. D. & Co.; Carrot Protein Extract Diagnostic-P. D. & Co.; Cat Hair Protein Extract Diagnostic-P. D. & Co.; Cattle Hair Protein Extract Diagnostic-P. D. & Co.; Celery Protein Extract Diagnostic-P. D. & Co.; Cheese Protein Extract Diagnostic-P. D. & Co.; Cherry Protein Extract Diagnostic-P. D. & Co.; Chestnut Protein Extract Diagnostic-P. D. & Co.; Chicken Protein Extract Diagnostic-P. D. & Co.; Chicken Feathers Protein Extract Diagnostic-P. D. & Co.; Clam Protein Extract Diagnostic-P. D. & Co.; Cocoa Protein Extract Diagnostic-P. D. & Co.; Codfish Protein Extract Diagnostic-P. D. & Co.; Coffee Protein Extract Diagnostic-P. D. & Co.; Corn Protein Extract Diagnostic-P. D. & Co.; Crab Protein Extract Diagnostic-P. D. & Co.; Cucumber Protein Extract Diagnostic-P. D. & Co.; Dog Hair Protein Extract Diagnostic-P. D. & Co.; Duck Protein Extract Diagnostic-P. D. & Co.; Duck Feathers Protein Extract Diagnostic-P. D. & Co.; Egg (all proteins) Protein Extract Diagnostic-P. D. & Co.; Egg White Protein Extract Diagnostic-P. D. & Co.; Egg Yolk Protein Extract Diagnostic-P. D. & Co.; Eggplant Protein Extract Diagnostic-P. D. & Co.; English Walnut Protein Extract Diagnostic-P. D. & Co.; Fig Protein Extract Diagnostic-P. D. & Co.; Garlic Protein Extract Diagnostic-P. D. & Co.; Ginger Protein Extract Diagnostic-P. D. & Co.; Goose Protein Extract Diagnostic-P. D. & Co.; Goose Feathers Protein Extract Diagnostic-P. D. & Co.; Grapefruit Protein Extract Diagnostic-P. D. & Co.; Guinea-hen Protein Extract Diagnostic-P. D. & Co.; Guinea Pig Hair Protein Extract Diagnostic-P. D. & Co.; Haddock Protein Extract Diagnostic-P. D. & Co.; Halibut Protein Extract Diagnostic-P. D. & Co.; Herring Protein Extract Diagnostic-P. D. & Co.; Hickory Nut Protein Extract Diagnostic-P. D. & Co.; Horse Hair Protein Extract Diagnostic-P. D. & Co.; Horse Serum Protein Extract Diagnostic-P. D. & Co.; Juniper Pollen Protein Extract Diagnostic-P. D. & Co.; Lamb Protein Extract Diagnostic-P. D. & Co.; Lemon Protein Extract Diagnostic-P. D.

& Co.; Lettuce Protein Extract Diagnostic-P. D. & Co.; Lobster Protein Extract Diagnostic-P. D. & Co.; Mackerel Protein Extract Diagnostic-P. D. & Co.; Milk (cow's—all proteins) Protein Extract Diagnostic-P. D. & Co.; Milk (human) Protein Extract Diagnostic-P. D. & Co.; Mugwort (wormwood) Pollen Protein Extract Diagnostic-P. D. & Co.; Mustard Protein Extract Diagnostic-P. D. & Co.; Mutton Protein Extract Diagnostic-P. D. & Co.; Oat Pollen Protein Extract Diagnostic-P. D. & Co.; Orris Root Protein Extract Diagnostic-P. D. & Co.; Oatmeal Protein Extract Diagnostic-P. D. & Co.; Onion Protein Extract Diagnostic-P. D. & Co.; Orange Protein Extract Diagnostic-P. D. & Co.; Oyster Protein Extract Diagnostic-P. D. & Co.; Parsnip Protein Extract Diagnostic-P. D. & Co.; Pea Protein Extract Diagnostic-P. D. & Co.; Peach Protein Extract Diagnostic-P. D. & Co.; Peanut Protein Extract Diagnostic-P. D. & Co.; Pear Protein Extract Diagnostic-P. D. & Co.; Pecan Protein Extract Diagnostic-P. D. & Co.; Pepper (Sweet) Protein Extract Diagnostic-P. D. & Co.; Perch Protein Extract Diagnostic-P. D. & Co.; Pike Protein Extract Diagnostic-P. D. & Co.; Pineapple Protein Extract Diagnostic-P. D. & Co.; Paprika Protein Extract Diagnostic-P. D. & Co.; Plum Protein Extract Diagnostic-P. D. & Co.; Pork Protein Extract Diagnostic-P. D. & Co.; Prune Protein Extract Diagnostic-P. D. & Co.; Potato (Sweet) Protein Extract Diagnostic-P. D. & Co.; Potato (White) Protein Extract Diagnostic-P. D. & Co.; Pumpkin Protein Extract Diagnostic-P. D. & Co.; Rabbit Hair Protein Extract Diagnostic-P. D. & Co.; Radish Protein Extract Diagnostic-P. D. & Co.; Ragweed Pollen Protein Extract Diagnostic-P. D. & Co.; Raspberry Protein Extract Diagnostic-P. D. & Co.; Red Pepper Protein Extract Diagnostic-P. D. & Co.; Redtop Pollen Protein Extract Diagnostic-P. D. & Co.; Rhubarb Protein Extract Diagnostic-P. D. & Co.; Rice Protein Extract Diagnostic-P. D. & Co.; Russian Thistle Pollen Protein Extract Diagnostic-P. D. & Co.; Rye Protein Extract Diagnostic-P. D. & Co.; Rye Pollen Protein Extract Diagnostic-P. D. & Co.; Sage Protein Extract Diagnostic-P. D. & Co.; Salmon Protein Extract Diagnostic-P. D. & Co.; Scallop Protein Extract Diagnostic-P. D. & Co.; Shad Protein Extract Diagnostic-P. D. & Co.; Sheep Wool Protein Extract Diagnostic-P. D. & Co.; Shrimp Protein Extract Diagnostic-P. D. & Co.; Smelt

Protein Extract Diagnostic-P. D. & Co.; Sole Protein Extract Diagnostic-P. D. & Co.; Spinach Protein Extract Diagnostic-P. D. & Co.; Squab Protein Extract Diagnostic-P. D. & Co.; Squash Protein Extract Diagnostic-P. D. & Co.; Strawberry Protein Extract Diagnostic-P. D. & Co.; Tea Protein Extract Diagnostic-P. D. & Co.; Timothy Pollen Protein Extract Diagnostic-P. D. & Co.; Tomato Protein Extract Diagnostic-P. D. & Co.; Turkey Protein Extract Diagnostic-P. D. & Co.; Turnip Protein Extract Diagnostic-P. D. & Co.; Veal Protein Extract Diagnostic-P. D. & Co.; Watermelon Protein Extract Diagnostic-P. D. & Co.; Wheat Protein Extract Diagnostic-P. D. & Co. Parke, Davis & Co., Detroit.

GROUP PROTEIN EXTRACTS DIAGNOSTIC-P. D. & Co.—A mixture in equal proportions of two or more Protein Extracts Diagnostic-P. D. & Co. For a discussion of the actions, uses and dosage, see preceding article, Protein Mixtures for Diagnosis. Group Protein Extracts Diagnostic-P. D. & Co. are marketed in collapsible tubes containing sufficient material for fifty tests. The following products have been accepted: Protein Extracts Diagnostic-P. D. & Co. Group 1 (beef, lamb, pork, veal, mutton); Protein Extracts Diagnostic-P. D. & Co. Group 2 (milk—all proteins, egg—all proteins, cheese, human milk); Protein Extracts Diagnostic-P. D. & Co. Group 3 (codfish, haddock, halibut, herring, mackerel, smelt); Protein Extracts Diagnostic-P. D. & Co. Group 4 (perch, pike, salmon, bluefish, shad, sole); Protein Extracts Diagnostic-P. D. & Co. Group 5 (chicken, duck, goose, turkey, squab, guinea-hen); Protein Extracts Diagnostic-P. D. & Co. Group 6 (clam, oyster, shrimp, scallop, lobster, crab); Protein Extracts Diagnostic-P. D. & Co. Group 7 (white potato, sweet potato, beet, turnip, carrot); Protein Extracts Diagnostic-P. D. & Co. Group 9 (celery, asparagus, onion, eggplant, radish, garlic); Protein Extracts Diagnostic—P. D. & Co. Group 11 (pumpkin, squash, cucumber, sweet peppers, tomato, rhubarb); Protein Extract Diagnostic-P. D. & Co. Group 12 (chestnut, peanut, pecan, almond); Protein Extracts Diagnostic-P. D. & Co. Group 13 (black walnut, Brazil nut, English walnut, hickory nut, butternut); Protein Extracts Diagnostic-P. D. & Co. Group 14 (wheat, rye, buckwheat); Protein Extracts Diagnostic-P. D. & Co. Group 15 (rice, oatmeal, barley, corn); Protein Extracts Diagnostic-P. D. & Co.

Group 16 (apple, pear, prune, plum, fig); Protein Extracts Diagnostic-P. D. & Co. Group 17 (cantaloupe, watermelon, peach, cherry, banana, pineapple); Protein Extracts Diagnostic-P. D. & Co. Group 18 (orange, lemon, grapefruit, strawberry, blackberry, raspberry); Protein Extracts Diagnostic-P. D. & Co. Group 19 (coffee, tea, cocoa); Protein Extracts Diagnostic-P. D. & Co. Group 24 (hair—cattle, hair—cat, hair—dog, hair—horse); Protein Extracts Diagnostic-P. D. & Co. Group 25 (hair—rabbit, hair—guinea-pig, wool—sheep); Protein Extracts Diagnostic-P. D. & Co. Group 26 (feathers—chicken, feathers—duck, feathers—goose); Protein Extracts Diagnostic-P. D. & Co. Group 27 (ginger, mustard, pepper—black, pepper—red, paprika, sage). Parke, Davis & Co., Detroit. (*Jour. A. M. A.*, Aug. 11, 1923, p. 477.)

ELIXIR OF LUMINAL.—Each 4 cc. (one fluid-drachm) contains 0.015 gm. ($\frac{1}{4}$ grain) of luminal in a menstruum containing alcohol 20 per cent. For a discussion of the actions, uses and dosage of luminal, see New and Nonofficial Remedies, 1923, p. 63. Winthrop Chemical Co., New York.

PUBLISHER'S NOTE

DIGITALIS TINCTURES.

It is no longer necessary for the physician to take the chances on digitalis he had to take a few years ago. Then he could do no more than try it out on the patient. Now it is assayed by test on animals, and preserved by various devices, among which are the placing of the tincture in small amber-colored vials, the addition of carbon dioxide to prevent access of atmospheric oxygen, and the dating of the package.

Digitalis leaves vary greatly in their content of the active medicinal principle, and while a tincture made from leaves of any strength can be built up to standard by evaporation, a safer and better way is to use standardized leaves—leaves that have been shown by physiologic test to be so active that a tincture made from them by the usual method will not require any concentration.

At the same time it must be remembered that digitalis tinctures *will* go to pieces, gradually, and it is an advantage therefore to have the tincture above the U. S. P. standard to begin with.

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THE JOURNAL

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Florida Medical Association

OWNED AND PUBLISHED BY THE FLORIDA MEDICAL ASSOCIATION

VOLUME X
No. 4

St. Augustine and Jacksonville, Fla., October, 1923

Yearly Subscription, \$3.00
Single Copy, 30c

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ORIGINAL ARTICLES

THE EXTREME EFFECTS OF FOCAL INFECTION.

JAMES V. FREEMAN, M. D.,
Jacksonville, Fla.

This patient, Mr. A. D. S., married, age 60, has a negative family history. His own personal history is negative except that he has had much malarial fever in boyhood and yellow fever in 1888.

He was in good health up to February, 1922, when he gradually began to lose flesh and strength and developed marked weakness to the point of being almost unable to walk. There was no pain. He was given a diagnosis of pernicious anemia and under treatment his condition oscillated between moderate improvement and setbacks until the time when he was first seen in April, 1923. Prominent among his symptoms was a tendency to fall and he had on one or two occasions fallen at his home, and on one occasion burned his clothing by falling in the fireplace. There had been a considerable amount of gastrointestinal disturbance but there was no headache and no knowledge of kidney trouble. He had noted swelling of the ankles for three months, which disappeared overnight. His eye-sight is poor. He has had glaucoma in both eyes and the left eye is now blind. There are cataracts in both eyes.

While sitting quietly at home on the night of April 13th, he fainted and slid out of his chair to the floor. He had convulsive movements for about a minute and then grew deathly pale and pulseless. His pupils were widely dilated and he was apparently dead. I was summoned by one of his neighbors who in a perfectly calm manner told me that she thought the man had passed away but asked me to come to see him.

When seen twenty minutes later he still had the ashy pallor and wide pupils of impending death, but was conscious. Pulse and heart action were very feeble; body was drenched with cold sweat. After about ten minutes, a mild convulsion oc-

curred. His condition was so desperate that I could not remove him from the floor for about an hour and then only to a bed which had been brought down stairs and set up in the room where he lay.

Vigorous hypodermic stimulation with caffeine and digitalis was continued through the night and he was brought by ambulance in the morning to the hospital. Bowel movements passed during the night were intensely offensive with the odor of putrefaction and fermentation.

Physical examination April 14th gave the following findings:

(1) The skin and mucous membranes are markedly pale, almost white; right pupil responds to light, left does not.

(2) There is considerable evidence of pyorrhea and there are several crowned teeth, many or all of which may be infected.

(3) The heart is definitely enlarged and its transverse diameter and the vessels at the base are also increased in size. There is a systolic blow at the base extending upward, a definite pericardial friction rub; first sound at the apex is decidedly poor in quality but no murmur is noted in this area. PMI in the fifth space $5\frac{1}{2}$ inches from the midline.

(4) The lungs show dullness, bronchial breathing and diminished fremitus at both bases, especially the left.

(5) The abdomen is generally distended and tympanitic; no enlargement of spleen or liver.

Temperature on admission 99.4, pulse 84, respiration 22. Temperature rose on second day to 102 and then gradually declined. It did not reach normal until May 1st. The pulse in general kept pace with the temperature throughout the course of the disease. The respirations reached their highest point at 36 on the evening of the second day.

Urine gave positive reaction for albumin and showed the presence of hyaline and granular casts as well as some pus cells. These findings gradually cleared up so that at the time of dismissal from the hospital the urine was practically normal.

*A Clinical Case presented before a Staff Meeting of the Riverside Hospital, Jacksonville, July 17, 1923.

Blood examination April 14th showed hemoglobin 30 per cent, red cells 2,760,000, leukocytes 10,600, differential count showed definite increase in polynuclears. Leukocytes reached their highest point, 16,000, on the 16th of April.

It will be noted that the blood examination shows a minus color index instead of the plus index which should be present if the diagnosis of pernicious anemia be correct.

Normoblasts were found fairly abundantly which seemed to confirm the diagnosis of pernicious anemia.

No parasites were found in the blood at any time.

Re-examination of the chest on April 15th gave the following findings: Dullness to flatness over the lower half of the left lower lobe posteriorly, shading into the axilla. Voice and breath sounds in this area are bronchial and fremitus is diminished. There is no cough. The same physical findings exist in a small area at the right base.

Diagnosis: hydrothorax, left chest.

Findings in the chest were confirmed by fluoroscopic examination, made April 17th.

"Fluoroscopic Examination, A. D. S., Age 60, Riverside Hospital."

Screen study of chest today shows the heart rather markedly enlarged toward the left side. The vessel shadows also show a moderate enlargement in their transverse diameter. The heart action appears feeble and very rapid. Screen study of the chest shows a relatively normal illumination of the right side; the movements of the right diaphragm were good. The left chest showed the presence of fluid at the left base; this was moderate in amount but seemed to obliterate the costal angle of the left pleural cavity. The movements of the left diaphragm were obscured and could not be made out with any degree of certainty.

Findings indicate an enlargement of the heart and vessel shadows associated with a moderate amount of fluid in the left pleural cavity."

Pericardial friction murmur persisted throughout the time of the patient's stay in the hospital, although the evidence of acute pericarditis gradually disappeared in the course of about three weeks.

The fluid in the left chest absorbed fairly quickly and was gone by the last of April at which time a pleural friction rub could be heard.

There was considerable abdominal distention throughout the early days which gradually sub-

sided after the intestinal tract was cleared and normal stools were obtained. It is interesting to note that the stools were clay-colored for a long period. I have no explanation to offer for this. There was no jaundice at any time and the stools were negative for blood, mucus and parasites. They have regained a normal color.

After the abdomen had flattened out, the spleen was palpable but, as reported previously, no parasites were found in the blood.

Blood chemistry on April 26th to determine retention of urinary solids showed a slight increase in nonprotein nitrogen and about twice the normal figures of urea and urea nitrogen. There was no increase in creatinine.

To return now to the blood picture, the hemoglobin and red cells both increased definitely during the patient's stay in the hospital and on April 26th the findings were as follows: red blood cells, 3,288,000; white cells, 6,000; hemoglobin, 42 per cent. On May 4th red cells were 3,396,000; white cells, 6,200; hemoglobin, 58 per cent.

Normoblasts were found daily up to April 23rd, but none after that time, and it is interesting again to call attention to the point that the patient's color index was always minus. This one finding made the diagnosis of the blood condition a secondary and not a primary form of anemia which has been confirmed by his rapid improvement as well as the discovery of other pathology to account for his condition.

The condition of his teeth, which had attracted attention at his first examination, was investigated definitely by X-ray examination, made April 16th. Evidence of root and apex infection in several teeth, enough to account, in my opinion, for the whole clinical picture, was observed.

No other source of infection has been demonstrated.

The patient's progress since leaving the hospital has been continuous. His weight has gradually increased until at the present time he weighs 161½ pounds, which is about 10 pounds below his normal weight. I do not know what his weight was when he was admitted to the hospital. My first observation was made on May 22nd at which time he weighed 161½ pounds.

His general strength has kept pace with the improvement in his general health and blood picture and he is able at the present time to carry on his work, although he has been instructed to travel in second speed.

Pesicardial friction rub has disappeared since about the middle of May and the left pleura is clear and normal.

The blood picture on May 24th showed red count 4,056,000, white count 5,000, hemoglobin 60 per cent; on June 14th, red count 5,000,000, white count 6,000, hemoglobin 65 per cent.

At the present time the hemoglobin is approximately 75 per cent. It shows no disposition to rise above that figure, where it has been for practically a month.

The blood pressure, which was reduced to about 110 systolic on the night of the patient's attack, rose to 170 two days after, and since then has gradually subsided. Blood pressure July 12th was 146-100.

Blood Wasserman was negative; there was no investigation of spinal fluid.

It is interesting to note that this improvement has all been brought about by general medical care.

The infected teeth, which are presumed to be the cause of illness, have not been removed. If the patient had not progressed satisfactorily, this would have been done at any time, but in the face of definite improvement it seemed wise to wait until a stationary point was reached. I believe that point has been reached at the present time and that the infected teeth should now come out. The patient will bear me out in the statement that I have urged that course, but that the matter has been postponed for reasons which seem adequate. He has been told that delay involves risk which is a point that I am sure you will all agree upon. Personally, I am quite sure that in spite of the enormous gain made in this case, there will be a recurrence of trouble unless the offending teeth are removed.

111 West Adams Street.

NON-SURGICAL DRAINAGE OF THE BILE CHANNELS; A PRELIMINARY REPORT OF THE USE OF THE DUODENAL TUBE AS A DIAGNOSTIC AND THERAPEUTIC AGENT IN CHRONIC BILIARY DISEASE.*

ERNEST B. MILAM, M. D.,
Jacksonville, Fla.

This subject should challenge the interest of all medical practitioners, be they general or

special. We remember that, as has been reiterated so often as to become trite, a large percentage of all the ills to which the human race tract; that the military commanders of all time realized the efficiency of their fighters was in direct proportion to the proper digestive functions in these men; we remember that our grandfathers in medicine recognized, in an obscure way, some direct connection between biliary and alimentary malfunction, arbitrarily coining the all-encompassing term "biliousness" to describe in a measure a condition they sensed but could not prove; we know that our modern internists and surgeons are realizing more and more the common incidence of bile-channel involvement to alimentary malfunction in so numerous a class of patients as is the latter and are manifesting great zeal in developing rational measures of prevention and correction of such disturbances. Remembering these things, our interest should require no stimulation. We are achieving methods which render obsolete the old term, placing at hand expedients for *proving* what in the past was merely *guessed* at. Our interest cannot languish when we remember further that we are all constantly in touch with patients who, because of their seemingly obscure and irrelevant symptoms, continue to suffer through our neglect in sifting their cases to the very bottom. One of the most pitiable conditions confronting us is that of the sufferer of some chronic gastrointestinal malady, too often undiagnosed. First, we fail in treating him, then we pity, then endure, and finally, ignore him.

Patients come for relief of probably as great a diversity of symptoms in biliary diseases as in any other condition in medicine. Careful survey of cases not even suspected of such involvements often points to some acute or chronic pathological condition of the liver, gall-bladder, or bile channels. A case may present any one or all of such symptoms as chronic constipation, mild or severe headaches, vertigo, tinnitus aurium, spots before the eyes, anorrexia, gastric pain, nausea and vomiting, flatulence, dyspnoea, general malaise, insomnia, loss of weight, indefinite lower abdominal pain, sometimes pain referred definitely to appendiceal region, etc., etc., and unless accompanied by pain in the gall-bladder region, jaundice, gall-stone colic, positive X-ray findings or other more typical symptoms, the possibility of biliary-tract involvement may be entire-

*Read before the Fiftieth Annual Meeting of the Florida Medical Association, held at Jacksonville, May 15, 16, 1923.

ly overlooked. We should not look for the characteristic symptoms; they may have been present and subsided before the patient comes to us and may be entirely replaced by more acute gastric symptoms or numerous obscure chronic ones. A host of these may be present, any one of whose neglect may be our undoing.

Last year, in a paper read before this society, I attempted to discuss briefly the part played by the duodenal tube in the diagnosis and treatment of affections of the gastrointestinal tract and its tributaries. The more specific object of this paper will be the discussion of its use in facilitating the diagnosis and treatment of bile tract involvements. The method is new, and while much original work is yet to be done, and physiologic phenomena to be explained, immediate results in numerous cases where surprisingly quick relief of pain and cessation of symptoms have rewarded its use intrigues the interest, and encourages one in persistent effort on cases that at the outset appear so chronic and obscure as to be almost hopeless.

In this discussion the references to the bile tract are intended to include the secretory hepatic cells, the collecting hepatic ducts, the main hepatic duct, the cystic duct, the gall-bladder, and the common bile duct; in other words, all of the channel concerned with the elaboration and discharge of bile, from the cells secreting it in the liver to the end of the duct emptying it into the duodenum at the ampulla. Disease of the bile tract may manifest itself in any or all of these regions, even to being a primary involvement of nerve supply to the secretory hepatic cells. Bearing these facts in mind, it can easily be understood why the word "obscure" is used in reference to some of our conditions, and why many of the gastroenterologists here and abroad are so diligent in this work, and are so certain that perfecting the newer methods of observation and diagnosis will add much to internal medicine and surgery.

I am persuaded that a lengthy discussion of a long series of case reports detracts rather than adds to the interest of a paper read to an audience naturally more interested in general than in technical features. With your indulgence therefore, this paper will represent an effort to discuss informally the use of the duodenal tube in the diagnosis and treatment of biliary involvements. A few brief case reports will appear later

to present the interesting clinical features and results of the work. Those who wish may review them when the article is published. Later reports will cover a series of about fifty cases.

The anatomy of the liver and bile passages is familiar to you all. The physiology of the tract and the functions of its secretion are more elaborate than their apparent unimportance might lead us to believe. The older practitioners recognized their disturbances, in conjunction with those of the intestinal tract, to be very common, and were prone, as we may infer, to apply to them their descriptive term "biliousness" already mentioned. Recent experiment and study demonstrate that the term is inadequate and misleading, and that the liver and bile channels are a quite complex and highly specialized group-organ. More of the physiology and function of bile is yet to be learned, but this we know: normal bile has two important offices; first, as a vehicle for the elimination of waste products thrown off by the great filter, the liver, and second, as an aid in intestinal digestion and absorption. Broken-down blood cells and debris and many of the products of katabolism are filtered from the body by the liver and are elaborated in the bile for elimination by way of the intestinal tract. Coincident with this office of elimination, the bile has been assigned a further function by nature, its aid to the intestines as stated above. Most physiologists seem to agree that it assists in the emulsification of fats, acts as an extremely necessary lubricant for the alimentary tract, and as a mild disinfectant for the upper and lower bowel. Now here we have a peculiar situation in body economy; we have a body fluid which is at once excretory and secretory, whose function is that of an important adjunct to digestion and assimilation, and at the same time is that of a vehicle for the elimination of waste products dissolved within itself. Physiologic function of the liver being normal, this dual function is performed undisturbed, but let congestion of the bile tract or of the intestinal canal, involvement of the liver, infection even of some distant organ develop, and it can readily be seen that a hazard promptly ensues. Where we have had a normally flowing stream promptly carrying its waste products out of the body, we now have a stream the very nature of which, having become stagnant or arrested, promotes an open door for fermentation and putrefaction, and provides a perfect medium for the development of pathogenic bacteria. The gall-bladder, whether it be simply a

reservoir, or, as is more probable, acts as a pressure equalizer, now appears in the limelight, for regardless of in what part of the bile tract involvement may begin, the gall-bladder in a great majority, if not all of the cases, soon becomes affected. Its very nature as a reservoir, its location, form, and dependence upon a small duct for drainage all tend to make it a ready seat for degeneration and infection of its contents when malfunction of some part of the tract exists.

It is the belief of the writer that relatively few, if any, gall-bladder diseases occur primarily in the gall-bladder itself, where the rest of the bile passages, the flow of bile, and intestinal elimination are normal, but that they occur secondarily to involvement outside itself. Experience further bears out the belief that in a general bile passage involvement, the gall-bladder is the last unit to assume a normal state under therapeutic methods applied directly to these channels, because of its same peculiarities mentioned above as aiding infection.

As we see now, from the very nature of the fluid it carries and its own physical characteristics, that the biliary system offers a ready field for pathologic involvement when its functions are disturbed from any cause, and as we know that these functions are closely related to those of alimentary elimination, disturbances of which are so woefully common in this age of mental advancement and physical neglect, we can understand why cholecystitis, cholelithiasis, and kindred involvements are prevalent. But recognizing these conditions in their incipency is not easy nor is it usual.

Bile channel involvements may be manifested by symptoms as unmistakable as those of gall-stone colic or obstructive jaundice, or by symptoms so obscure or irrelevant as to engender no suspicion of biliary disease. The latter are of such frequency that the writer places bile tract involvement along with hookworm as the first conditions coming under the process of elimination in all gastrointestinal cases presenting themselves, other than children.

The orthodox symptoms of biliary diseases are familiar to you. The newer phases of symptomatology are elaborated upon in a number of recent contributions to medicine. Remembering that of the five great areas of focal infection, namely, sinuses, teeth, tonsils, gall-bladder, and appendix, stagnant bile offers probably the most fertile soil for bacterial growth, and remember-

ing its coincidental involvement with many conditions so common in the bowel, it can be seen that a deaf ear should never be turned to symptoms, no matter how obscure they may be, that might indict the bile channels.

The Use of the Duodenal Tube in Bile Channel Affections.

In the duodenal tube, a relatively recent addition to our medical armamentarium, we have a most useful little piece of mechanism for aiding in diagnosis and treatment of diseases of the gastrointestinal tract and its tributaries. Granting that all claimed for it in bile passage disorders is on trial until unquestionably accepted, its value as an aid has been definitely proved and is beyond dispute. First, in the reclaiming of gastric contents, the analysis of which should always be made in suspected bile-channel involvement, our duodenal tube is infinitely more to be preferred than the old-fashioned stomach tube, both from the standpoint of ease of manipulation by the operator and of comfort of the patient. The tube is quickly passed, the stomach contents obtained, and the patient may then be placed in the proper position for the tube to pass by gravity into the duodenum. The time required for the latter to occur may be from one-half to three or four hours, depending on several factors. In cases of pyloric spasm an overnight period may be required. When the bulb is in the duodenum, normal contents of the latter may be aspirated for determining pancreatic function. Salt solutions are now introduced into the duodenum to stimulate the flow of bile. Various salts are used for this purpose, the more common ones being sodium phosphate, sodium sulphate, magnesium sulphate, and magnesium citrate. Various others are used, as are combinations of two or more. The writer has found the ones best suited to be a saturated solution of sodium phosphate of a 50 per cent solution of magnesium sulphate, the latter being the most satisfactory.

As to the physiologic action of the solutions when instilled into the duodenum, controversy still waxes warm. Whether it be stimulation of the duodenal mucosa with contraction of contiguous structures, direct stimulation of the nerve endings in the mucosa and reflexly of the gall-bladder musculature, reflex stimulation of the hepatic secretory cells, whether it acts as a solvent of obstructive material, or performs all of these phenomena combined, or still others, the fact remains that bile flow is increased and be-

comes more rapid when the solutions are instilled directly into the duodenum. The writer has observed cases of acute jaundice where no bile would flow immediately following the instillation, but where later there would suddenly be a veritable gush of bile containing flocculi, plugs of mucus, disintegrated cells, and debris, which inclines one to the belief that in some cases obstructions of the common duct have simply been dissolved by the solution used and free flow instituted.

The changes of color in normal bile are marked and are of considerable significance as a basis of comparison with those of abnormal bile channel contents. The first bile is light lemon-colored, and later becomes darker and more viscid, this probably from the gall-bladder: still later it is again light golden yellow, probably from the hepatic ducts and cells. The chief point of interest is that abnormal bile, from whatever part of the channels it may come, has characteristics markedly at variance with those of the normal fluid. In a majority of cases of the involvements under discussion, this is the picture that the bile discloses: after the first light-colored duodenal contents, bile appears that is thick and viscid, dark green colored, or even tarry black; it contains particles or flocculi plainly visible while drainage is in progress, it is ropy and evidently full of mucus, all of this in contradistinction to normal bile. Now it were unreasonable to assume that we can blindly assign *pathologic* bile to certain definite parts of the bile channels with the same assurance that we do with normal bile, and in my opinion it is not necessary to do so. As stated previously in this paper, and as borne out by observation on these cases, the gall-bladder is practically always itself involved, and our attention manifestly centers upon this organ, especially as medical treatment is essentially the same whatever the part, or parts, involved.

Microscopically, pathologic bile presents some or all of the following features, depending upon the degree of involvement: mucus, shreds of epithelium, white blood cells often to the extent of pus, red blood cells, fragments of mucus membrane, bacteria, and sometimes cholesterol crystals and fine particles of sand-like material. The latter two features point strongly to gall-stones, the others to different degrees of infection. Culture of such bile usually develops the presence of staphylococcus-albus, the significance of which I am not prepared to discuss, as I am not certain

that uncontaminated bile-channel contents can be obtained by the duodenal tube, and furthermore have at various times found what was apparently normal bile obtained through the tube to be in some cases positive and in others negative for the microorganisms mentioned.

It is reasonable now to assume that the presence of such abnormal bile as has been described prompts the diagnosis of bile-channel pathology. In those cases where gall-stones are indicated, unquestionably surgery is the proper method of treatment, and delay increases the hazard. But even in these cases, where age or general physical condition make surgical procedures inadvisable, definite palliative effects can often be obtained by the duodenal lavage which will presently be described.

The duodenal tube, it is of course understood, as a diagnostic measure is used in conjunction with the usual expedients such as history, complete physical examination, examination of the stool and urine, of the blood, use of the x-ray, etc. Conversely, any attempt to diagnose other than the patent and unmistakable bile channel involvements without recourse to the duodenal tube is denying oneself the use of one of the most potent measures at hand.

Treatment, regarding chiefly gall-bladder disease, may be medical or surgical. In cholelithiasis, as I have stated, there is no choice. Manifestly stones cannot be coaxed out through a small rubber tube, even if they could be brought to the duodenum and forced into it. Likewise it were natural to regard an acute catarrhal jaundice as properly a case for medical treatment. As to the many other conditions of inflammation, acute and chronic, it is not my purpose to promote or engage in any controversy with the surgeons as to methods that should be employed. Their cases of cholecystectomy and cholecystotomy have presented enough not entirely satisfactorily sequelæ for them to accord my methods the same deference as I accord theirs.

Medical treatment first consists of the usual procedures as to proper alimentary elimination, diet, hygiene, general symptomatic, etc., except that the use of the cholagogic salts given by mouth in the old way is not indicated, as the duodenal instillation accomplishes the same thing directly and with much greater certainty. The routine use of the tube is as follows: Fifty cc. of the solution chosen is allowed to enter the duodenum by gravity and remain five minutes. It is then

either aspirated with a syringe, or, as the writer prefers, allowed to return by gravity, the distal end of the fluid-filled tube depressed two or three feet below the level of the prone patient, thereby instituting syphonage. While this method may be somewhat slower than the other, it is preferable because the suction is then gentle but constant, and free from the possibility of causing abrasion of the duodenal mucosa by suction too vigorously applied. Bile flow is established after a waiting period dependent upon the degree of congestion, especially of the common duct, and may be immediate and rapid or delayed and slow. Periodic flow and cessation develop every alternate few minutes. Flow is further increased by gentle massage of the gall-bladder region, and is sometimes markedly increased by the patient's sneezing, coughing, or laughing, this being due to increased intra-abdominal pressure. The induced flow can be maintained indefinitely, from a few minutes in neurotic patients to even several days in those who desire the maximum of immediate effect. The end in view is the reclamation of clear, normal bile. While this is not possible in one drainage in all cases, in others one prolonged drainage accomplishes the desired result with cessation of symptoms for periods of from several months to years. The reason for the end desired being the flow of clear, normal bile resolves itself into the essential of the treatment. Be the condition common duct obstruction by inflammatory products, inflammation of the gall-bladder, or of any part of the bile passages, the object is the removal of the inflammatory products, the emptying of the gall-bladder of its infected bile, and the stimulation of bile secretion, for as soon as the abnormal contents are removed the flow of normal bile institutes a washing out of the tract, and stimulates a return of normal secretory function, and, if we accord the credit to the procedure justified by the results we must agree that it accomplishes in a very short time what the older medical methods of orally administering cholagogues required weeks and months to do, with many cases showing no improvement whatever.

As the case reports are to appear later, I will offer a brief review of a few cases as groups simply to crystalize the points presented as salient

in this paper. They may be grouped as follows, according to pre-drainage diagnosis:

- Acute catarrhal jaundice, 5.
- Acute cholecystitis without jaundice, 3.
- Chronic appendicitis, possible cholecystitis, 1.
- Duodenal ulcer, 1.
- Cholelithiasis, 2.
- Gall-bladder migrane, 1.
- Chronic cholecystitis, 37.

Chronic constipation existed in all. Gastric disturbances in varying degrees were also present. But presence of pain, its location, severity, relation to taking of food, duration, etc., was not typical in all cases.

In the five cases of acute catarrhal jaundice, symptoms of nausea, vomiting, headache, constipation, etc., cleared up in from two to four days. Drainage in each case was instituted three times, four days apart, the tube being left in place for about twelve hours in each instance. The jaundiced skin was slow to clear up, and this was a question of desquamation and blood-absorption of pigment and was not related to the drainage after bile became normal.

Of the three cholecystitis (acute) without jaundice, one proved to be that of gall-stones, but the patient declined operation. The symptoms of nausea, vomiting, etc., followed the same course as did the jaundice cases. The case with stones received the same treatment as the others, and as there was never a history of colic, it is assumed the stones were all large. No recurrence of symptoms up to the present time, one year after drainage, has developed.

A case diagnosed as chronic appendicitis, with a possibility of gall-bladder disease, gave a clinical symptomatic picture of appendicitis, but with a more severe chronic gastric involvement than is usual with this condition. There was no pain or other symptom referable directly to gall-bladder affection. Drainage revealed badly diseased bile. Recovery with no recurrence of symptoms up to present (eighteen months).

One case, provisionally diagnosed as duodenal ulcer because of some characteristic symptoms of this disease and a complete lack of those of biliary involvement, and where the x-ray left some doubt as to the exact nature of the duodenal deformity, proved on drainage to be a chronic bile channel disturbance. The usual duodenal lavage, with general and dietetic treatment, have given relief from symptoms for two years.

One most unusual condition was that of a physician's wife. For over ten years she had been suffering from a periodic migraine of the most distressing type, accompanied always by severe nausea and vomiting. Acute jaundice had never been present. Beginning with attacks lasting not over a day, and appearing weeks apart, the symptoms became gradually more severe over the period of years until, when seen by the writer, the wretched condition lasted for several days, the extreme nausea and continual vomiting preventing the taking of nourishment. The attacks were now about ten days apart. You can visualize the degree of debility in this patient. Many expedients for relief had been resorted to without effect. As bile was always vomited at the time of the acute attacks, and as relief seemed to depend on a quantity of it being so discharged, duodenal drainage was instituted. The ensuing attacks were anticipated each time with a drainage until ten had been done, with progressive improvement. The bile proved to be that of a chronic cholecystitis. The attacks were now about a month or more apart, the acute periods reduced from three or four days to one, and the severity of the migraine distinctly lessened. This patient had the last drainage eight months ago. Another series is to be instituted with the expectation of still further improvement.

Of the other thirty-seven cases the diagnosis of chronic cholecystitis proved to be correct. The drainage in each case was from one to four times, depending, as has been described, on the recovery of normal bile. Four of these cases had a second series of drainage six months after the first, and still another after one year, not because of a recurrence of the symptoms, but as a measure deemed advisable in view of the resistance to the first treatments. Thirty-four of the 37 cases have had no recurrence of symptoms; two cases had complete relief for two months, followed by a recurrence much milder than the first involvements and are still under treatment. One case, a neurotic individual, showed no improvement whatever from the first drainage and declined to submit to further ones.

This is a mere outline of treatment and results in these cases; to appreciate the importance of the use of the tube in the diagnosis of many of them where the symptoms were obscure, a review of the case histories to appear later is suggested.

CONCLUSIONS.

1. Bile tract involvements, especially secondary to gastric and alimentary disturbances, are of very common occurrence.

2. Owing to frequent obscurity of the symptoms, biliary diseases are often overlooked.

3. The duodenal tube is a most valuable diagnostic adjunct in determining the condition of the bile channels in suspected pathology, and of affections of the stomach so often secondary to biliary disease.

4. As a therapeutic agent in diseases of the gall-bladder and bile passages the tube has unquestionably demonstrated its usefulness, and gives promise of much further development.

The writer lays claim to no originality of method in the foregoing discussion except that the conclusions are his own and are based on his personal observations. Others are doing this work, many of them have observed series greatly in excess of his in numbers, and their conclusions may not be in accordance on many points. But the work is going on, time will settle all contentions, and medicine will be the gainer.

If this discussion engenders greater interest in many of our obscure gastrointestinal conditions, if some of the chronic sufferers thereby gain relief, and if others with such involvements in their incipency are saved future suffering, then the writer will feel amply repaid for this modest but sincere effort.

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DIABETES MELLITUS: THE CARDINAL PRINCIPLES OF TREATMENT.*

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The treatment of diabetes mellitus can with greatest advantage be conducted in a clinic or other institution to which come large numbers of diabetics. This chiefly because of its educational value to the patient. However, we seldom have things in life just as we want them, and we must learn to cope in the most efficient manner possible with conditions as we find them. This applies with particular force to the practice of medicine and incidentally to the treatment of diabetes mellitus. The man engaged in general practice fre-

*Part of a discussion on diabetes held at a meeting of the Southeastern Division of the Alabama State Medical Association, August 21, 1923.

quently encounters diabetics who cannot afford to visit a specialist and whose treatment must be instituted and conducted in its entirety at home. With the proper painstaking care this can be done.

It is of the treatment of diabetes with those facilities which are found in the country or the small town that I wish to speak. Without pausing to give credit to the men who have emphasized these principles, it can be said that seven cardinal principles govern the successful treatment of this disease.

First is the education of the patient. In a disease the duration of which is years and in which everything depends upon intelligent cooperation, the patient must thoroughly know the nature of his malady. He must be taught to compute food values, to examine the urine, to recognize the signs of impending danger, such as acidosis or insulin shock, and to appreciate the objects of treatment. This can best be accomplished by placing in his hands certain elementary books such as Joslin's, or Wilder's manuals, or Locke's book on food values, and above all by frequent conferences.

The second principle is that of undernutrition. The patient's metabolism must be kept low and to this end he should be permitted only such food as is necessary to meet his minimal metabolic requirements and to prevent his drawing upon his own body tissues. The basal metabolic requirements are proportionate to the surface area of the patient's body. Formulæ have been devised to facilitate these computations, but even these are not essential. If we base our estimate of his requirements upon the fact that the twenty-four-hour basal metabolism, while the patient is at rest, approximates twenty-five calories per kilogram of the body weight, we are not likely to go far wrong. With our scales it is necessary also to remember that two and two-tenths pounds make one kilogram. Frequent weighings serve as a control upon the accuracy of these estimates, for if a patient is gaining weight (in the absence of œdema) it is evident that his food intake exceeds his maintenance requirement, while if he is losing weight (and the urine contains no sugar) it is equally evident that he is not metabolizing sufficient food to meet this requirement.

The third principle concerns the well-known rule of carbohydrate restriction. To rest the pancreas the patient must be given only such an

amount of carbohydrate as he can completely metabolize, and which will not lead to the appearance of sugar in the urine. The untreated diabetic grows worse because the excess of unutilizable sugar circulating in his blood makes impossible demands upon the islands of Langerhans. This leads to exhaustion and final degeneration of these cells. To keep the ingested carbohydrates within his tolerance is the only means of halting this downward process. If his tolerance in this respect is low he must then be given insulin. Someone may say, "But blood-sugar estimations cannot well be made away from the medical centers." The answer is that while blood-sugar estimations are of great value, they are not a *sine qua non*. Systematic urine examinations can be made to serve as a reliable guide to treatment.

The fourth principle is that of low protein intake. Since protein, through its specific dynamic action, hastens metabolism, to permit more than the patient actually needs would be to violate the important principle of minimal metabolism. For an adult it is estimated that a daily protein intake of two-thirds of a gram per kilo of body weight is sufficient; for a child, one gram per kilo is required. More than this should seldom be given.

The fifth principle concerns the amount of fat which can be permitted with safety. The quantity of fat which a patient can take without the production of fatty acids and the appearance of coma depends upon the amount of carbohydrate which he metabolizes. As has been aptly said, the fats burn in the fire of the carbohydrates and if there is too much fat the fire smokes. The acetone bodies have been likened to the smoke. It is estimated that the patient can safely burn two grams of fat for every one gram of carbohydrate metabolized. In this computation one-half of the protein is reckoned as carbohydrate. If the fats exceed this ratio coma may supervene.

The sixth principle is that of good hygiene. The diabetic should studiously observe the principles of hygiene. Sufficient rest; a reasonable amount of exercise and of recreation; the avoidance of worry, overwork and undue excitement, are all of great importance. Of greatest importance in this connection, perhaps, is the avoidance of bacterial infection.

As a seventh principle, the patient should not be given insulin unless it is needed. The very

mild diabetics and the arteriosclerotics, who occasionally have a little glycosuria, but who can metabolize a satisfactory maintenance diet without glycosuria, do not need insulin. All others do. I have been using insulin with great satisfaction about nine months. Approximately one-third of the patients who have come to us, after their tolerance has been determined and the diet arranged, have gone home without taking insulin. The other two-thirds are now taking it with an average daily dose of about twelve units. They have all learned, not only to arrange their diet, but to administer to themselves their own insulin.

Briefly, then, to determine the appropriate diet for a diabetic, the following procedure is suggested: Multiply the patient's weight in kilograms by twenty-five and take this figure as the minimal number of calories required. Add 500 calories if he is to be up and about. Give two-thirds of a gram of protein daily per kilo of body weight. The carbohydrate tolerance is determined experimentally by beginning with a diet of very low caloric value and increasing the carbohydrates daily until sugar appears in the urine. An amount slightly less than this should be prescribed. Then, after computing the caloric value of the proteids and carbohydrates thus permitted, there should be added sufficient fats to bring the total figure up to the number of calories originally estimated as needful, provided, however, that the carbohydrate-fat ratio of one to two is not exceeded.

If the diet thus based upon the patient's carbohydrate tolerance does not permit enough food to meet his metabolic requirements, then a sufficient dosage of insulin should be given and the carbohydrates and fats proportionately increased. One unit of insulin will permit him to metabolize one and one-half to two and one-half additional grams of carbohydrate, and this in turn three to five additional grams of fat.¹

As an example: If the patient weighs one hundred and twenty pounds (fifty-five kilo), he will require daily 1375 calories, or if he is out of bed, 1875 calories. He should be given on the basis of his weight thirty-six grams of protein. Assume that sixty-five grams of carbohydrate has been found to be the limit of his tolerance, and that we can safely give him sixty grams. The protein and carbohydrate each yield four calories to the

gram, which in this case would provide 384 calories daily. There would then remain 1491 calories still to be provided. At nine calories to the gram it would require 165 grams of fat to meet this deficit. Since the total glucose metabolized by him is only 78 grams (60 grams plus the 18 grams of glucose yielded by the protein) the carbohydrate-fat ratio of safety would be exceeded. This amount of fat would be dangerous. Give, then, daily fifteen units of insulin to take care, say, of an additional twenty-five grams of carbohydrate. Now, with 103 (85 plus 18) grams of carbohydrate, only 154 grams of fat would be required to provide a maintenance diet, which is well within the limit of safety.

To summarize: The treatment of diabetes can be most advantageously instituted and planned where methods of precision and facilities for instruction of the patient are of easy availability, but such surroundings are not essential. Thorough familiarity on the part of both patient and physician with the objects and methods of treatment, together with intelligently planned and painstakingly controlled diet at home, will often bring satisfactory results.

SOME OF THE HYGIENIC ACTIVITIES OF THE NAVAL AIR STATION, PENSACOLA, FLORIDA.*

LIEUTENANT COMMANDER HOWSON W. COLE,
Medical Corps, United States Navy.

Hygiene has been defined as "that branch of medical science which concerns itself with the preservation of the health of individuals and communities. It is an attempt to render growth more perfect, decay less rapid, life more vigorous and more prolonged, and death more remote. It is concerned with all the agencies which pertain to or affect the physical condition or mental state of man in his diverse environment and his manifold activities."

In order to intelligently solve the complex problems which constantly face the naval medical officer, we must orient ourselves and realize that our duties require us today to care for men aboard ship and tomorrow for men in camp or in barracks ashore. The sailor's duties take him far afield, sometimes ashore, sometimes afloat, often in the air and under water in submarines or div-

1. Since the above was written the strength of insulin has been increased forty per cent.

*Read before the Escambia County Medical Society at Pensacola, June 12, 1923.

ing, and these activities are carried on in a variety of climates, varying from the cold of northern stations to the intense heat of our tropical possessions, and he is expected to adjust himself to these changes and be as efficient in one place as in another. It is one of the medical officer's duties, and one of his most important ones, to guide, direct, and assist in making this adjustment and particularly in rendering the environment everything that it should be in order to conserve, preserve and maintain him at his highest efficiency.

Sanitary work is, at best, slow, plodding, and usually devoid of the spectacular. The results are also achieved slowly, often so slowly that they are accepted by the laity as a matter of fact without appreciation of what are in reality splendid accomplishments. How many of the laity know, or knowing, appreciate the fact that General Gorgas made it possible for General Goethals to build the Panama Canal, which feat would never have been accomplished without the patient, intelligent work of that eminent sanitarian?

Rigid observance of prophylactic measures has made it possible to prevent many of the diseases which have in times past been known as camp scourges. Malaria, typhus, typhoid, relapsing fever, dysentery, cholera, diphtheria, and others, no longer are the riders of the pale horses that once walked untrammelled through our camps and took their toll of stalwart, healthy men. Disease is, as we all appreciate, a far more formidable foe to our fighting forces, as well as to the wheels of industry, than the shot and shell of the most terrible of enemies. A generation ago, the economic loss to the South from the hookworm alone amounted to millions of dollars. Knowledge of the life history of this parasite, together with the discovery that thymol is a specific in eliminating it from the patient, has prevented many from becoming infected, has cured those already staggering under its ravages, and has saved the South material loss in dollars and cents.

Every naval station presents its own sanitary problems, peculiar to its locality, and a few of ours will now be presented to you. In order to render the situation clear, a short description of the station may not be amiss, as many of you are probably not familiar with its topography and the area which it covers.

The naval reservation covers an area of about fifteen hundred acres, of which the air station proper occupies only a small portion, approximately two hundred and thirty-three acres. The land is low, sandy, and covered by timber and underbrush. There are numerous small ponds and marshes which are inlets from Pensacola Bay. Much progress has been made in clearing this land of underbrush and draining the marshes in and near the reservation villages of Warrington and Woolsey, which are located just outside the main gate of the station. Approximately ten miles of drainage ditches have been dug and oil drips of five-gallon capacity have been placed in the marshes, ditches, and other strategic points. A sanitary squad of five negro laborers, under the guidance of the medical officer of the station, clear the adjacent land of undergrowth and keep the ditches clear, clean, and well oiled at all times. As a result of these and other measures, mosquitoes have been, and still are, kept down to a minimum, and in the past two years there have only been two cases of malaria that are traceable to infection at this station. These ditches also contain a large number of minnows, which, by their constant preying upon the larvæ, greatly reduce the number of adult mosquitoes.

This sanitary squad is, in our opinion, one of the most important adjuncts to the life and well-being of the station. Six days a week, year in and year out, they are hard at it, oiling ditches here, clearing underbrush there, removing debris of every kind wherever found, and reporting anything to the medical officer that may seem out of the way to them. They are all over the reservation and their reports are often of inestimable value in forestalling what might become a menace to health. Their work is so laid out that ditches and marshes are oiled once every week, which is three days less than the time required for the mosquito eggs to hatch. These men are only negroes, uneducated and illiterate, but they have the welfare of the reservation at heart, living upon it as they do and obeying orders as they are given, and I take this opportunity of commending their good work.

The villages of Warrington and Woolsey are under the sanitary supervision of the medical officer. Regular inspections are made of the premises of the citizens and special inspections when the occasion warrants. The chief drawback to these villages is the absence of a proper

sewage system. Garbage is removed in the usual way and properly disposed of at the station incinerator, but on account of lack of funds, no toilets exist and recourse is had to the use of the old-fashioned privy of rural days. However, all privies are required to be screened in the rear by a hinged door which fits snugly when closed, and all seats are furnished with tight-fitting lids, preferably of wire screening to permit free circulation of air. The receptacles for feces are of metal and are of such height as to reach no lower than two inches below the rim of the seats. Supervision is also had over all activities involving the sale of food or drink, and the premises of groceries, meat markets, soda fountains, etc., are constantly inspected. No dairyman is allowed to sell milk anywhere on the reservation until he has submitted a certificate from the state veterinarian stating the number and kind of cattle and whether each one shows a negative tuberculin test. The medical officer personally inspects all dairies (without notice being given in advance to the owners) and a first-hand knowledge of their methods of cleanliness is thus obtained. The inhabitants of these villages are vaccinated free of charge at the yard dispensary against both smallpox and typhoid fever. All births, deaths, and infectious diseases occurring among the residents are reported to the medical officer, who takes the necessary steps appropriate to the occasion.

On the station proper, the following inspections are made: Daily inspection of all food received at the commissary store; daily inspection of mess halls and galleys and all meals served; daily inspection of the brig and prisoners; weekly venereal inspection of all men connected in even the remotest way with the handling, preparation, or serving of food; weekly inspection of the welfare cafeteria and the marine post exchange; weekly inspection of the enlisted personnel and the enlisted men's barracks; monthly inspection of all buildings in the yard which house civil employes; the welfare fund maintains a pig farm on the reservation and this is inspected once a month. The hogs are vaccinated against hog cholera, the stys are clean and there is seldom any odor.

In addition to the methods already mentioned for the eradication of mosquitoes, the grounds of the entire station proper have recently been filled in and leveled off by the use of dirt re-

moved from other parts of the reservation. This measure removed all depressions and consequently all potential breeding places for mosquitoes and at the same time released the sanitary squad from the task of oiling holes that were temporary pools after each rain, and thus their services could be used elsewhere.

The garbage of the station is removed daily from all sources, including the officers' quarters, and is disposed of in the usual way at the incinerator. The sewage system is the one familiar to you all and is quite satisfactory.

The water situation, however, is our gravest problem, and the sword of Damocles daily hangs over us. The consumption of water on the station, including the naval hospital, averages about 250,000 gallons per day. This water is filtered through the deferrization plant and is obtained from one deep well and twenty-one shallow wells. The deep well delivers approximately 150 gallons per minute, the remainder of the supply being from the shallow wells. The settling tank has a capacity of 100,000 gallons, as has also each of the two storage tanks, the latter reaching an elevation of 150 feet. One of these tanks is kept as a reserve in case of fire.

A sanitary survey of the station was made with a view to the location of new deep wells. After careful consideration, the medical officer recommended that no wells be dug for permanent use, as the grounds available are in a vicinity drained either by human habitation or the national cemetery. The wells now in use, especially the shallow ones, present just this condition, but as an offset, there is considerable filterative action, as the water percolates through sand. Test wells are being dug between the station and the city of Pensacola, but a report on same is not yet available. The potable water for the officers' quarters and the enlisted men's barracks, until January, 1922, was rain water collected from a number of buildings and stored in closed cisterns. This supply, dependent as it was upon atmospheric conditions, frequently ran low, and was considered precarious. However, until January, 1922, this was our sole source of potable water. The water from the station mains was not potable on account of the iron and sulphur content. In addition to being unpalatable, the iron was present to such an extent as to color all basins, bath-tubs, and towels.

The deferrization plant has corrected this and our tap-water is now potable. However, our real problem at present is the constancy of supply. for the one deep well and the twenty-one shallow ones may fail at any time from the corrosive action of carbonic acid gas or from other causes. In my opinion, and I have repeatedly so recommended, the best solution is in connecting up with the Pensacola mains to the eastward of Bayou Chico, thus acquiring a constant, potable supply.

The operation of the deferrization plant is as follows:

First—Aeration: This removes odors from the water by the escape of noxious gases into the atmosphere. This is accomplished by breaking up the water into small particles, so as to give the gases therein contained a chance to escape. The aeration also introduces oxygen into the water. It also removes carbonic acid gas and thus reduce the amount of lime required for neutralization of the carbonic acid.

Second—Lime Treatment: The lime is added for the purpose of neutralizing the carbonic acid, forming calcium carbonate, which precipitates. Alum is also added at this stage. It is used as a coagulant and, being heavy, sinks, carrying in its meshes some of the iron, the bacteria, and other foreign matter.

Third—Iron Removal: The introduction of the lime forms a ferrous hydrate which is oxidized by the oxygen to ferric hydrate, part of which settles in the settling tank, and part of which is removed by sand filtration.

Fourth—Sand Filtration: This filters out the ferric hydrate above noted, also the bacteria.

Fifth—Chlorinization: This process is at present being installed and was deemed necessary on account of the presence at one time of colon bacilli in the raw water from the shallow wells. These colon bacilli are thought to have come either from a leak in a man-hole main in the naval hospital grounds or from a stable in the near vicinity of the shallow wells. The stable has been removed and the leak in the hospital grounds repaired and subsequent examination of the raw water from these wells has been negative. As a matter of interest, the last examination of water was made by the laboratory of the U. S. Naval Medical School in Washington and the samples

were sent by aeroplane, arriving in twenty-four hours after collection.

A routine examination of water is made every quarter, both chemical and bacteriological, and oftener when the circumstances require it.

The naval enlisted man, after graduation from the rookie class, is, as a rule, fairly particular about his personal hygiene. He is, however, when on liberty, not so careful with whom he sleeps nor is he very meticulous in his selection of a bed. Consequently, it is not uncommon to find that he frequently brings some of his bed-fellows back to the barracks with him and, were it not for frequent inspections, the common bed-bug, *Acanthus Lectularia*, would shortly reign supreme. In order to rid the barracks of this unwelcome guest, the following routine is observed: The personnel of the infested section will remove at reveille beds, mattresses, pillows, pillow-cases, and blankets to the north and in the near vicinity of their building before going to breakfast. When beds are outside as directed above, pillow-cases and mattress covers will be removed, turned inside out, inspected for vermin and well shaken out, and if so directed, they will be sent to the laundry. If not so directed, they will be returned to the building and stowed in lockers for use that night. Immediately after breakfast, a detail of two men from each division will report to the chief master-at-arms, who will supervise the following procedure: Steam all mattresses and pillows, followed by spraying with a solution of equal parts of kerosene and gasoline, followed by a thorough brushing with a hand kiwi, after which they will be laid out flat on racks for sunning. Blankets will be treated likewise and hung on clothes-lines provided for this purpose and exposed to the sun's rays. In the matter of steaming mattresses and pillows, care is taken not to allow them to become too thoroughly soaked. Bunks will then be folded so as to expose all possible cracks and a thorough application of steam administered through a steam hose, paying particular attention to getting steam in all corners and cracks. After this, spray thoroughly with the kerosene-gasoline mixture and replace in a normal position again and leave outside. At 2 p. m., this working party will reverse the sides of the mattresses and pillows and blankets in order to sun the opposite sides. No bedding is returned to the barracks until 4

p. m. While bedding is outside, compartment cleaners spray all parts of the building where vermin may lodge, particular attention being given to cracks in the wainscoting, lockers, etc. The airing of bedding is a routine weekly procedure and if any vermin are found, the above measures are carried out.

Sanitary drinking fountains of the bubbling spring variety have been installed in all buildings where sufficient workmen or enlisted men are employed to justify it. In offices, the individual paper cups are used. At one time, quite an epidemic of gingivitis of a Vincent's angina etiology appeared and its origin was traced to the use of a community drinking cup. This epidemic disappeared with appropriate treatment and the installation of fountains as described above. Incidentally, the gingivitis was very successfully handled by Lieutenants Whitmore of the Medical Corps and Daniels of the Dental Corps, and the form of treatment used was local applications of carbol-fuchsin.

A constant warfare is waged on roaches. Some of the officers' quarters have been so-called "roach-proofed," which consists merely of closing up cracks and holes and is not entirely successful. The constant use of sodium fluoride seems to keep them down to a minimum, but does not entirely eradicate them. All cooks, mess attendants, etc., are instructed to keep all food in hermetically sealed containers and allow no crumbs or scraps of food to lie around, but this measure is not strictly carried out and it is very difficult to rigidly enforce it.

Fly-traps are placed outside galleys (kitchens) and in the rear of each officer's quarters. Garbage is placed in metal receptacles with close-fitting tops and stored in screened houses until time of daily removal. Rat-traps are also to be found all over the station. Those of us who indulge in poultry raising have our poultry houses with concrete floors and they are cleaned out twice a week and clean sand spread on them. Water troughs are emptied daily and the houses are given an inside coat of white-wash once a month.

A recapitulation shows the following measures are being taken for the eradication of mosquitoes:

Cleaning, clearing, and oiling of ditches; the use of the top minnow, *leistes reticulatus* or guppy, in the ditches; clearing of undergrowth

on the station, at Camps Mustin and Bennett, at Commodore Pond, and the two cemeteries; grading and leveling of the station grounds, thereby eliminating temporary or permanent pools; keeping the lawn grass cut short; no open receptacles capable of holding water, as cans, etc.; screening of all buildings and living quarters; all flower-pots shall have holes in the bottom to drain off excess water; discouraging the growing of elephant ears, and the oiling of the stem canals of same after a rain; all cisterns to be either closed, or else screened with wire mesh at least eighteen wires to the inch each way; emptying of chicken troughs daily. No one in Warrington or Woolsey shall have, keep, maintain or permit any cistern, tank, barrel, or other receptacle of similar character, containing water in which mosquito larvæ may develop unless the same shall be screened with wire mesh of at least eighteen wires to the inch each way, or otherwise covered so as to prevent the ingress and egress of mosquitoes to and from the water therein contained, or failing these measures, the receptacle must be emptied daily; in cisterns or tanks where larvæ are found despite the use of screens, the introduction of the guppy is excellent, if the entry of light is sufficient to sustain life—if not, the owner has the alternative of using oil every week. A thin film of oil does no harm to the guppy so far as we have been able to ascertain. When larvæ are discovered in a receptacle containing water, there is considerable objection to the use of oil on the part of the householder, if the water is to be used for drinking or cooking, but as the water is usually withdrawn from a hole or faucet low down, there is no mixture of oil and water, due to the oil floating on top.

"An efficient larvacide has been found in Paris green in the proportion of one per cent mixed with ordinary road dust and thrown by hand over breeding areas, the operator standing to windward and relying upon the breeze to spread the mixture. Two teaspoonfuls of Paris green mixed with twenty-five ounces of road dust will control one thousand square feet of breeding surface at a cost of one cent. The application should be repeated at intervals of ten days and the operator should wear gloves. The mixture is harmless to vegetation and does not poison cattle." It has not been tried by us yet, but will be in the near future.

THE PROFESSIONAL ETHICAL BUSINESS RELATION OF PHYSICIAN AND SURGEON.

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After many years of professional service and work varied from that of a country practitioner to town and city work, both in general medicine and surgery, with the vicissitudes and struggle incident to these various phases of professional life, I yet have confidence in medical ethics and the high calling of the medical profession.

Ethics is defined as (a) "The science of human duty," (b) "The basic principles of right actions."

Every honorable business man should be governed by such principles and actions, and especially a member of the medical profession in dealing with human lives. The profession of medicine is second to none, unless it be the ministry, in opportunities for doing good, relieving suffering, and aiding in the uplift of humanity. Doing our duty as a profession calls for that which is noblest and best in us.

The profession of medicine has passed through many transitional periods from the dawn of its history up to the present.

"The advance in scientific medicine has been greater during the lifetime of some men now living than in all the history of the world before."
—Keen.

We as a profession are participating in the world changes that are now taking place, and vital, potent forces are working for better conditions. We are passing from a period of personal gain and commercialism into a broader field of closer relations and unity of action in the preservation and development of the human race.

Some of us can remember the day of the "old-time family doctor," revered in the home next to that of the minister, sacrificing and ministering, day and night, to suffering humanity with or without compensation. God's noblemen they were. They were supplanted by the age of specialization and commercialization of the medical profession. A two- or three-years course in medicine and a few weeks in special study developed a full-fledged specialist ready to pocket the silver and the gold. Medical ethics to many of these was old foggy, out of date and out of style.

The medical profession is just beginning to realize the world vision—the Rotarian vision, if you please—"Service to Humanity." "He serves best who serves most."

The future will develop a closer, more cordial and more beneficial relation as regards patient, physician and surgeon. The physician will become more proficient in diagnosis, call in or refer patient to surgeon earlier, when efficient, better surgical work can be done. The surgeon of the future will be better qualified and better trained for more efficient, complete, constructive surgical work.

The efforts being put forth in the last few years in raising the standard of medical education will give us better trained and better qualified physicians. It will also give better ground foundation for qualified surgeons.

Add to this the effort of the American College of Surgeons to standardize surgery; also both the work of the American College of Surgeons and the American Medical Association to standardize the hospitals, and the future gives bright prospects for more efficient medical and surgical work, and more unity of action between physician and surgeon.

Need I say that prompt early diagnosis is often imperative on the part of the physician for the best interest of the patient. Take, for instance, acute appendicitis, intestinal obstruction, ulcer with perforation, perforation of stomach or duodenum, or perforations in typhoid fever; strangulation of hernia; free intraperitoneal hemorrhage in ectopic pregnancy; in all, delay in diagnosis is dangerous. Delay frequently means complications and death. Here the physician has a duty and responsibility which he can not evade. Early diagnosis and early operation in each is comparatively safe, late operations often extremely dangerous.

The physician should be very efficient in the diagnosis of such conditions; if not, he should at least call in a surgeon early. If the physician delays and the surgeon is required to do a late operation in an effort to save life of patient, then the surgeon is not responsible for death of patient if he does good surgery under the circumstances. If a physician is in doubt as to acute appendicitis or intestinal obstruction, he should call a surgeon at once and not kill his patient by delay and giving cathartics.

The only thing admissible in the line of cathartics in acute appendicitis is large doses of

olive oil early, or an enema of oil and boric acid solution early, one or both in the first few hours of the attack; washing out stomach is advisable if full of food or if vomiting; none of these should be used in perforations, strangulations and in free intraperitoneal hemorrhage. The physician that delays calling a surgeon and gives drastic cathartics in these cases is responsible for the results, which is death frequently if active cathartics are given.

In many other instances there are border-line conditions that need the combined knowledge, with cooperation and harmony, of physician, surgeon and laboratory worker for best interest of patient. Discord and criticism render each less efficient, causes the public to lose confidence and the patient to lose faith, which is often an important factor in successful medical and surgical work. Equally reprehensible is the unjust criticism of the physician's treatment of the case by the surgeon.

Financial returns frequently are a bone of contention between physician and surgeon and does much to discredit the profession of medicine and surgery. Here we have a Golden Rule and an ideal guide: "Treat and charge each patient as you would like to be treated and charged if in their place." This requires frankness, strict honesty of purpose and square dealing on the part of both physician and surgeon. He who charges more than his services are worth or for services not rendered is a "profiteer," be he physician, surgeon, or laborer. "The servant is worthy of his hire," is also equally true. No physician or surgeon should charge for services not rendered. You would think so if you were the patient. Exorbitant fees on the part of the surgeon is profiteering just as much so as exorbitant charges of the merchant or laborer.

Much that seems exorbitant in the charges of the surgeon is not exorbitant. The surgeon's fee usually includes the examination of patient, consultation with physician in charge, the operation, assistant, and after-treatment with care and attention while in hospital, often advice and counsel with physician afterward.

A surgical operation in proportion to its magnitude carries with it a great weight and responsibility to the conscientious surgeon, and none other is worthy of the support of the physician. If the case is a prominent business man handling large interests, a prominent official, or a prominent professional man, the responsibility

of the surgeon is greater and, in case of death, injury to surgeon's reputation is often greater; hence, the compensation should be greater. It is also evident the physician treating such persons assumes more responsibility and should charge in proportion to time consumed and responsibility. Special investigations and examinations should also have their compensation to the physician in charge.

Physicians and the public often overlook the fact that a surgeon's fee includes the visits, time and attention given patient after operation. Frequently the surgeon makes so many visits in the after-treatment and attention to patient, often having very unpleasant work in changing dressings, that if charged for at regular rates there would be but little if any money left to pay for operation proper.

It costs much to be a well-qualified surgeon, as he must first be a physician, then acquire additional qualifications to fit him for surgical work. It requires a larger outlay for surgical instruments and equipment, with hospital accommodations for efficient work surgically, also to group his cases to save time visiting each individually, to supply them with trained surgical nursing, trained operating-room nurse and a trained assistant. The surgeon gets a case from a family once or twice in a decade, while the physician has their work year after year.

In the near future all surgeons will have to be better educated, better fitted and trained before doing surgical work. As it has been, and is even yet to some extent, many enter the field of surgery, making the competition great, and in the struggle for survival the profession is commercialized by some, and in many places the professional standard is lowered, so that surgeons give commissions, division of fees either directly or indirectly to physician sending him patients. Having the physician bringing the case, except in cases of emergency, to help in the operation is only a subterfuge for the same purpose. Every surgeon should have a regular competent assistant if he does justice to his patient. With irregular assistants, no surgeon can do as rapid, efficient surgery and will have more infections and complications following his work. An occasional assistant is not a good assistant, an occasional operator is not a good operator. If you were on the operating table what would you expect?

The anesthetist should be competent and specially trained for the work so as to lessen risk to the patient and relieve the operator of responsibility during the operation. The surgeon using the physician bringing him the case, as anesthetist or assistant, changing each operation, is not a safe surgeon, can not do his patient justice and will have more infections and complications following his work. In cases of emergency or work in the country such things have to be done, but should not be done in regular hospital work.

There should be a close relation between the physician and surgeon, they should consult oftener, giving each other the benefit of their experience. The physician should see the results of his diagnosis in the operating room more frequently; it would make him a better diagnostician and a better physician.

A physician should select a surgeon to do operation on account of his fitness, qualifications and ability, not only of himself but also his anesthetist and assistants, and not from the amount of the commission or money he is to get out of the case. Such money carries with it a curse to both giver and receiver, and is a disgrace to the physician, surgeon and the medical profession. Men that do such things do not merit the confidence of the public.

Giving commissions in any form is simply selling your patient to the highest bidder. Suppose the trusted family physician, because he can get a larger "rake-off," sends his trusting patient to a surgeon not so competent to do the work and the patient dies because of that lack of ability, then who is responsible for the death of the patient? Who has betrayed a trust? Suppose you were a layman and the patient a loved one of your own family. What would you think, say and do?

The fee-splitter and commission-giver are parasites sapping and destroying confidence in the medical profession, and should not be recognized by honorable members of the profession nor allowed on the staff of a recognized hospital.

Can you be honest, sincere and true to your profession, yourself and to your patient and participate in such methods of professional work?

If the surgeon charges a big fee in order to give the physician a commission, then the patient lionizes the surgeon as a wonderful man doing wonderful work, and at the same time minimizes

the services of the physician and considers them of little value.

If the physician goes with patient to see the surgeon and holds a consultation, giving surgeon information of value and is present at the operation, he should present his bill to the patient, not the surgeon, for his visits, consultation and time. Then the patient will recognize the services of his physician as being something of value and, being able to consult with the surgeon, will increase his faith in you and your ability.

The surgeon should charge a reasonable fee for his services and responsibility, render his own bill to the patient and maintain you in charging a reasonable fee for your services rendered the patient.

Such action on the part of the surgeon and physician impresses the patient with the value of the services of each. The patient realizes he has had a square deal, has greater confidence in the medical profession and more faith in his family physician.

Any surgeon that splits fees, or gives commissions either directly or indirectly, lowers himself in his own estimation, the physician receiving them feels the same influence, both are more or less suspicious of each other, and lose confidence in the high standard and ethical relations of the medical profession.

If the patient could adjust a mental X-ray and read the transaction, would it increase his faith and confidence in the surgeon, his physician and the medical profession? If you do not want the patient to know of the transaction, it is self-evident then that it is wrong.

Can you imagine Jenner, Hunter, Lister, Pasteur, Gorgas, Sims, McDowell or Osler doing such business? Then can we afford to be less honorable and loyal to our profession?

If we, as a profession, condone and endorse giving commissions or splitting fees by the surgeon, when and where will it stop?

Soon all the specialists would have to give commissions to get business. Even the general practitioner when he attains a big reputation would have to give commissions to get consultation work, or patients referred to him. The X-ray and laboratory worker would have to fall in line and give commissions. In places, I have known of physicians getting rebates on prescrip-

tions. If the almighty dollar is what we are after, regardless of the honor of our profession, why not make the undertaker give us commissions, as the one that gives commissions will have more use for the undertaker—hence, make more money.

Will you, as an individual member of the profession, help to lower its standards by auctioning off your patient to the highest bidder for a few dollars and cents, at the sacrifice of principle, and possibly be responsible for the death of your patient?

Such practices are forbidden by laws in Kansas, Nebraska, Iowa, Minnesota, Wisconsin, Ohio, Alabama, West Virginia, Tennessee and Colorado.

Any physician doing such business, if known, is not admitted to the American College of Surgeons and gives a written obligation not to do so before admission. I quote from Transactions of 1920, page 24: "I hereby promise, upon my honor as a gentleman, that I will not so long as I am a Fellow of the American College of Surgeons, practice division of fees in any form; neither by collecting fees for others referring patients to me; nor by permitting them to collect my fees for me; nor will I make joint fees with physicians or surgeons referring patients to me for operation or consultation; neither will I in any way, directly or indirectly, compensate any one referring patients to me; nor will I utilize any man as an assistant as subterfuge for this purpose."

No surgeon can attend the clinics of the American Clinical Congress of Surgeons until he has signed a statement that he does not give commissions or split fees in any form.

Some of the best hospitals do not now admit anyone on the staff that does such work. Soon a majority of the hospitals will be standardized and not permit such practices by members of the staff.

To me the high calling, honor and dignity of my profession comes first, and before I will lower the dignity and honor of my profession or trail its banner in the dust and slime of dishonor, I will leave the profession and pursue some other business or profession in which I can make an honorable, honest living.

In conclusion, I desire to again emphasize what I consider the Golden Medical Creed:

"Treat and charge each patient as you would like to be treated and charged if in their place."

With this as a guiding principle in professional life, one can not go far astray. If you aspire to a higher, broader, professional life—"Believe in yourself, believe in humanity, believe in medical ethics, believe in the success of your undertakings. Fear nothing and no man. Love your work, love your profession. Work, hope, trust and be true. Keep in touch with today, teach yourself to be practical and up-to-date. You can not fail."

CORRESPONDENCE

In a recent issue of this Journal I outlined in a very brief and incomplete article some of the policies of the Southern Medical Association; why such an organization was necessary, what it stands for and is accomplishing, showing the percentage of members of the Florida Medical Association holding membership in the Southern.

Since this article appeared, many letters and application blanks have been sent to our members inviting them to affiliate with the Southern Medical Association. In response to these letters and the presence and effort of a representative of the Southern Medical Association at our annual meeting in May, at Jacksonville, the membership in the Southern from Florida was materially increased, for which I am duly thankful and appreciatively grateful.

This great and wonderfully progressive regional association will hold its annual meeting at Washington, D. C., November 12 to 16, 1923, and from a superficial survey of the tentative program it promises to be the best and largest attended of any preceding assembly.

The national capital offers many and diverse interests and attractions to the visitor, of which he never tires, and in November especially is the climate salubrious. Special railroad rates are offered for the meeting and a certificate of identification from the Southern Medical Association entitles one to purchase a round-trip ticket for one and one-half fare from the local railroad agent.

If you are not a member of the Southern Medical Association, apply at once for membership blank and certificate and sound the slogan in your community, "On to Washington".

(Signed) R. H. MCGINNIS, M. D.

DETAILED REPORT OF TREATMENT OF A CASE OF LOCK-JAW WITH RECOVERY.*

J. S. TURBERVILLE, M. D.,
Century, Fla.

The purpose in view in reporting this case is the hope that others will do likewise and we will thus be able to arrive at some approximate idea of the amount and method of using antitoxin.

H. B., age 13, white American. Past history: Measles at 9 years, whooping cough at 8 years, influenza 1923, gun-shot wound right leg February 27th, right fibular region. No prophylactic given. On the eleventh day after gun-shot wound patient showed slight stiffness of jaws, followed a day later by convulsions at about two-hour intervals. Admitted to hospital March 13th, convulsions severe and frequent, temperature 102, pulse 140.

Physical examination: Heart and lungs O. K., muscles of neck and jaw stiff, mouth could be only partially opened. Abdominal muscles in a state of contraction, opisthotonus well marked. Gun-shot wound right fibular region, right foot and toes extended. Urine negative both chemically and microscopically. Patient anesthetized, March 13th: 4,500 units antitoxin intramuscularly, 3,000 intravenously, and 2,500 intraspinally.

March 14th: Convulsions frequent and severe. Under anesthesia — 5,000 units administered intraspinally, 10,000 intravenously, and 10,000 intramuscularly.

March 15th: 5,000 intraspinally, 10,000 intravenously. Convulsions less severe and frequent. Gun-shot wound dressed with permanganate solution, later saturated with iodine and glycerine. Wound cleaned up and all unhealthy tissues cut away.

March 16th: Patient restless, light convulsions throughout day, 5,000 intraspinally, 10,000 intravenously, 5,000 intramuscularly.

March 17th: 10,000 intraspinally, 10,000 intravenously.

March 18th: 10,000 intramuscularly, 10,000 intravenously.

March 19th: 10,000 intravenously, 10,000 intraspinally, 5,000 intramuscularly in region of sciatic nerves.

March 20th: 20,000 intravenously.

March 21st: 15,000 intravenously.

March 22nd: Patient resting much better, no convulsions, 25,000 intravenously.

March 23rd: 20,000 intravenously.

March 24th: 20,000 intravenously.

March 25th: 20,000 intravenously. General condition much improved. Rigidity less marked in muscles of abdomen and neck. Patient up in rolling chair.

March 26th: No antitoxin administered during day, slight biting of tongue during night.

March 27th: 20,000 intravenously.

March 30th: 20,000 intravenously.

April 1st: 15,000 intravenously.

Liquids and semisolid diet given freely until patient was able to masticate regular diet. Patient discharged from hospital on April 2nd.

Morphine and chloral were given freely to prevent the patient from wearing himself out during the period of detoxication. We gradually withdrew these drugs and by the end of a week he was only taking a dose at night. We used chloroform to begin the anesthesia, and then followed this with ether. This was given on five successive days and an interval of one day was allowed, and then the final anesthesia was given on the seventh day. It was thought that these short anesthetics would be less harmful than the pain and mental anguish caused by bending the body forward to do a spinal puncture.

You will observe that 310,000 units were used altogether.

I wish to take this opportunity of thanking my associate, Dr. N. L. Gachet, for his labor in working up the details of this report from the hospital record.

AVIATION MEDICINE.*

LIEUTENANT J. R. POPPEN,

Medical Corps, United States Navy.

The impetus given aviation during the late war is too well known to need reiteration at this time. It is only necessary to mention it to remind us of the tremendous strides made in the construction and maintenance of aircraft. Nor has this advance stopped with the signing of the armistice. Methods of construction are continuously being improved and records for sustained flight, speed

*Read by title at the fourth annual meeting of The Florida Railway Surgeons' Association, held at Jacksonville, May 14, 1923.

*Read before the Escambia County Medical Society, at Pensacola, June 12, 1923.

and maneuverability are broken almost daily. Aviation today is experiencing more advancement than perhaps any other science. The conquest of the air is no longer an hypothetical problem but an accomplished fact. Man flies.

Throughout the history of man we can point with pride to the fact that our profession has kept pace with advancement in all fields in which new medical problems opened up. When the war called for large numbers of men for aviation duties, the profession was immediately faced with the problem of determining who should be trained for this work. What were the peculiar qualifications of a good aviator? That he should be free from all physical defects was easily apparent. True, it was not as well known then as now just how important even slight temporary physical derangement might be, but we knew that they must be the most fit. Well, what were the safe limits? Was 15/20 vision sufficient? Was it necessary that a candidate hear perfectly? All these questions came up. The Surgeon General of the Army, confronted with this problem, approached it with the same despatch and diligence which characterized all the war work in this country. A commission was appointed consisting of army medical personnel and civilian physicians particularly qualified in their several specialties, which was charged with the determination of what constituted the standards which should be maintained in the acceptance of men for aviation duty. The results of their efforts are a page in medical history of which this country may justly be proud. It is interesting to note that the standards outlined by this commission, practically unchanged, are standard even now.

It soon became apparent that medical personnel must be especially trained in the examination of applicants for flying training and the care of the finished flyer and so there was created the Medical Research Laboratory and School for Flight Surgeons. As the School of Aviation Medicine at Mitchel Field this organization remains as the training school for both army and navy flight surgeons. In addition to this instruction, experimental work is in constant progress tending toward the improvement of examination methods and care of aviation personnel.

Aviation medicine embraces the determination of who shall be accepted for aviation training,

who shall be continued on duty involving flying, the detection of physical and psychological defects which should either temporarily or permanently ground a flyer and the avoidance and correction of these defects in order to preserve the highest efficiency in aviation activities. Study of the psychological adaptation to altitude, wind, cold, equilibrium, etc., may be mentioned as fields of research opened to science with the advent of aviation.

The examination of candidates for aviation training is a most comprehensive one. It can be safely said that it is the most rigid of all physical standards. That this is necessary is apparent when it is remembered that statistics prove that during the war 8 per cent of fatal crashes were caused by mechanical defects in the planes, 2 per cent caused by the enemy and 90 per cent by either temporary or permanent physical defects of pilots. The reduction of this avoidable 90 per cent is the big problem of aviation medicine. Not only is the candidate given a most careful general physical examination, but particular stress is laid on the examination of the special senses, particularly the eye and ear. The eye examination includes not only visual acuity, but a determination of depth perception, complete phorometry, strength of accommodation, color sense, field of vision for form and color, refraction under homatropine and a careful ophthalmoscopic examination. The ear examination includes careful history, appearance of the external canal and the tympanum and the determination of auditory acuity by means of the watch tick and coin click as well as the patency of the eustachian canal. Next follows tests of equilibrium on the Barany chair, which determines the patency and sensitiveness of the semicircular canals and associated nervous mechanism particularly in regard to time or horizontal nystagmus, past pointing on stimulation of the horizontal canals and falling from the erect posture after circulating the fluids in the vertical canals. After a careful medical history is taken the candidate is given a minute physical examination with a view to determine the presence of any defect which would make him susceptible to the rigors of so unnatural, inhuman environment as the air. This phase of the examination stresses the efficiency of the circulatory organs, including careful examination of the

heart to determine the presence of any organic lesion, blood-pressure readings and the circulatory efficiency rating or Schneider index. The last is a numerical expression of the reaction of the heart to postural changes and standard exercise as shown in the change in pulse rate and blood pressure.

It is an accurate index of a man's general well-being and is sensitive to even casual temporary changes such as the loss of a few hours' sleep or dietary indiscretions, etc.

Examination is completed by a very careful neuropsychiatric history and examination. The scope of this short paper will not permit a detailed discussion of this phase of the examination. Suffice to say that if we are careful and rigid in the physical qualifications of the candidates we are even more so in regard to their psychological qualifications. Aviation is the one branch of the service which calls for individual effort more than any other. There is practically no "mass action" in aviation. The flyer feels himself entirely "on his own" while he is performing his duties. We cannot condone slight variations from the normal reactions as we can in the case of organizations in which comrades may bolster one of their number along. The adjustment to the environment of flying calls for the highest type and most acutely developed psychologic reactions. The character elements which go to make up the desirable personality for flying duty are a study in themselves and must be left to the other writings for more detailed description.

The keynote in the examination is "reserve". It is not sufficient that a man have binocular fixation. Does he maintain fixation at the expense of strain on a certain muscle or group of muscles? Has he perfect muscular balance? It is not sufficient that he have normal vision, 20/20. Does he exhaust his entire reserve of accommodation to do so? Or is his true correction under cycloplegia small enough to leave him a reserve of accommodative power? It is not sufficient that he be able under the most favorable circumstances to pilot a plane around Pensacola Bay. In time of war, under the strain of hard, strenuous flying, in unfavorable weather, following a siege of influenza, or perhaps an acute sinusitis, can he still maintain normal vision? We are

not so much interested in the fact that he has no murmurs, irregularities of abnormal pulse rate, important as these unquestionably are, as we are in his efficiency rating. Does his heart react to postural changes and exercise in such a way that it indicates a degree of reserve sufficient for him to stand up under severe strain? It is not sufficient that he be free from demonstrable psychosis. Is his mental equilibrium such that when his wife and baby are sick at home, he has just received the news of the death of his mother or he has just seen his dearest friend fall in a fatal crash, he can climb into the cockpit and "give 'er the gun?"

Not the least interesting phase of our work is the rebreather. This is an instrument by which we can measure an individual's capacity to withstand oxygen want. Most of the symptoms caused by high altitudes are the result of the reduced partial pressure of oxygen, producing a condition of anoxic anoxemia. All individuals differ in their ability to withstand reduced oxygen pressure, the conditions on which this difference is predicated remaining still in obscurity. Without subjecting him to actual reduction of oxygen, it is impossible to determine his reaction. The rebreather accomplishes this by reducing the percentage of oxygen while at high altitudes the percentage remains normal but, atmospheric pressure being reduced, the partial pressure is less. The effect is the same. So by gradually reducing the percentage of oxygen in a mixture under normal sea-level pressure we simulate climbing to a high altitude.

The apparatus, briefly described, is a tank from which the examinee breathes air through closed tubes. He exhales through a carton of sodium hydroxide crystals, removing the carbon dioxide, back into the same tank. The only change in the air is a gradual reduction in the percentage of oxygen present. During the course of the experiment careful record is made of rate and amplitude of respiration, pulse rate, and blood pressure. An intricate electrical device which affords him a threefold problem is constantly in operation and his performance is noted particularly in regard to his attention and motor coordination which are the two mental functions most affected by oxygen want. As the oxygen percentage becomes less and less, inefficiency

will be shown in a variety of ways, depending on the type of reaction of the subject. He may experience circulatory inefficiency as shown by sudden drop in pulse rate and blood pressure, fainting, or he may become inefficient in the performance of his mental task. Rarely he may exhibit psychotic tendencies which, of course, immediately disqualifies him. Absolutely no ill effects are experienced after the run and we are afforded an excellent record of his reaction to oxygen want. The type of reaction he shows is as much of importance as the altitude he has attained as shown by analysis of the sample of air remaining in the tank. The way he stands up under oxygen want is an accurate index of his reaction to any strain, thus affording us information as to his ability to adjust himself to flying.

The care of the flyers is one of the most important duties of the flight surgeon. I will leave out of this paper any discussion of physical training, exercise, diet regulation, etc., and will simply mention some of the things for which we must be constantly on the watch. Flyers get stale. Staleness may be shown by a number of symptoms. It always begins insidiously and is not realized by the man himself. Loss of weight, loss of appetite, listlessness, insomnia, palpitation, sensitiveness to minor inconveniences, etc., may be the beginning of a general let-down in the physical and mental tautness so necessary to the flyer. Neuro-circulatory-asthenia, variously known as "soldier heart", effort syndroms, etc., a condition in which the respiratory and circulatory response to exercise is exaggerated without apparent pathological cause, is an ailment to which flyers are especially subject. Nipped in the bud and removed by the judicious prescription of rest, systematic exercise and dietary regulations, these symptoms can be averted and staleness and a possible crash prevented.

A flight surgeon must know the life of the flyer. He must appreciate the hazards of flying. He must undergo the same trials, the same thrills, the same sense of the ever-presence of the old man with the scythe. He must know these to appreciate the needs of the people whose health and well-being are in his hand. There is nothing so stimulating to cooperation on the part of the flyer as the realization that the medico is ready

to undergo the same things he does with the same confidence as he would come to the medico to have his appendix out. We must have the confidence of the flyers in all walks of their lives. They must feel that they can confide in us their most personal trials, knowing that our desire is to keep them in the air and out of the hospital. We do not pose as wet-nurses, nor as shields behind which to avoid duty, but the proper care of the flyer cannot be accomplished without a thorough knowledge of what he is up against and a desire to alleviate those things which make it dangerous for him to fly.

Why is it necessary for the flight surgeon to fly? That is a question often asked. If it is possible to determine beforehand by means of our methods of examination, personality study, rebreather runs, etc., what a man's reaction is going to be, is any further observation under actual conditions necessary? In other words, if we presume to be able to tell if a man is going to be adaptable to flying duty, is it necessary to check our findings by first-hand observation of his flying? An affirmative answer must be apparent. By psychometric tests we can determine a child's mental age, but that does not constitute an examination in algebra or geometry. We can tell if he has mental horse-power enough to accumulate the desired information, but we must examine him in the subjects he has studied to determine whether or not he has gained the information. In the same way, by pelvimetry we can determine whether or not a woman's pelvis is of sufficient size and proper proportions to permit labor, but the final test must be actual labor. The same thing applies in the examination of the flyer. By approximate methods we can predict quite accurately if he is the type to warrant training, but unless we observe his flying we cannot determine whether or not he has deserved our endorsement. Indeed, observations of the different types of personality under actual flying conditions must be the source of our criteria. Again, having determined by actual observation the flying ability of our pilots, we can note those slight changes which are often the first signs of slight physical and mental derangements which usher in conditions which make it unsafe for him to continue flying and which should be watched and corrected if they reach sufficient importance to

ground him either temporarily or permanently. Observation and study of the flyers under flying conditions must be our final methods of determining the condition of our charges.

Should the flight surgeon be a finished, qualified pilot? Opinions have not centered on this question. It is generally accepted that he should know enough about it to understand the mechanical operation of the planes and to realize the hazards and dangers and the proper methods of avoiding and correcting dangerous position so that he may know whether or not the pilot is flying properly. This knowledge can be gained without requiring the flight surgeon to qualify as a solo pilot, but it cannot be gained without study and instruction in actual flying methods.

The physiological reaction to high altitudes constitutes a field of study which has only just been scratched. The increased demand for oxygen causes an increase in respiration in excess of that caused by the usual stimulation of the center by increasing the H-ion concentration. Consequently carbon dioxide is washed out of the alveoli causing a change in the acid-base equilibrium which must be met by an adjustment in the relative amount of ammonia and urea produced by the liver and an increased excretion of alkali. The mountaineer makes these adjustments by methods which extend over a considerable period of time, but the aviator must make a temporary adjustment to be followed by a more permanent one after his return to the ground. The scope of this short paper will only permit the mention of this as one of the many peculiar problems confronting the profession with the development of aviation. The circulatory changes: heart rate, blood pressure, blood cell distribution and changes in differential count; changes in visual acuity and hearing; changes in attention and motor coordination and other physic functions are among those still to be investigated. The effects of cold, wind, rapid changes in position, have scarcely been touched.

An attempt has been made to briefly outline the peculiar problems opened to the profession by the development of aviation and also the steps that have already been taken to solve them. Boring details have been avoided as far as possible, and it is hoped that this short paper has impressed you with the reasons why aviation medicine has developed as a special branch of our profession as well as the need for further study and experimentation.

CONGENITAL CLUBFEET*

J. KNOX SIMPSON, M. D.,

Jacksonville, Fla.

Talipes equino varus may be either congenital or acquired, but the congenital type is the one furnishing the topic for this paper. It is far and away the most important of the congenital foot deformities, constituting 77 per cent of the club-foot deformities of infants, and occurring about once in each 1,000 births. It is unilateral in 57 per cent and bilateral in 43 per cent.

Concerning the etiology of this deformity we know no more than we do about congenital deformities in general, which is very little. About 5 per cent of the cases show sufficient evidence of similar defects in the family history to be classed as hereditary. In some cases it is a part of a number of developmental defects such as hare-lip, cleft palate, spina-bifida, etc., and can be regarded as of fetal origin. At other times pressure effects from maternal origin are evident, but the majority of the cases by far leave us with no explanation for their occurrence. Etiology, therefore, as you see, is of only didactic interest, so we will pass to the more practical considerations of the subject.

The pathologic anatomy of these deformities is extremely important, for without a thorough understanding of this phase of the subject our treatment must necessarily be illogical and fraught with many disappointments in the results we obtain.

This is a composite deformity, consisting of three distinct parts, as follows:

Inversion of the whole foot; adduction of the forefoot; and plantar flexion. Primarily, except where real congenital bony malformation is present, a relatively rare condition, malformation of the bones is entirely secondary to, and the result of, continued maintenance of a distorted position of the foot during bone growth. It is what one would expect to follow, just as surely as does the bound foot of the Chinese woman conform in its growth to the size and shape of the binding; and the growing gourd of the little country boy to the size and shape of the bottle which is placed over it. In view of the extreme importance of an accurate knowledge of the anatomy of each of the

*Read before the Fiftieth Annual Meeting of the Florida Medical Association, held at Jacksonville, May 15, 16, 1923.

composite parts of the deformity, a brief analysis of each might be of interest at this point.

1. In the inversion the os calcis is tilted inward so that its inner tuberosity approaches the internal malleolus, and lies almost directly under the astragalus instead of to its outer side. It is held in this position principally by two agents, the internal lateral or deltoid ligament, and the pull of the tendo-achilles, which becomes with this deformity an active inverter of the foot, due to the throwing out of line of its normal pull.

2. Adduction of the forefoot accompanies a lengthening of and twisting inward of the head and neck of the astragalus, carrying the scaphoid and forefoot with it. There accompanies this part of the deformity, as a rule, a fan-like spreading of the phalanges.

3. Plantar flexion is maintained by shortening of the tendo-achilles, tilting the tuberosity of the os calcis upward, and the astragalus forward and downward; and by shortening of the plantar fascia, maintaining plantar flexion of the forefoot. In this part of the deformity the anterior part of the articular surface of the astragalus, having been for some time free from the compressing incident to its normal position between the malleoli, becomes widened and offers an additional obstacle to correction.

Occasional additional features of the disability as a whole are internal rotation of the tibia, and knockknee, the latter frequently caused by stretching of the ligaments of the knee joint during manipulation of the foot with the knee in extension.

The diagnosis of the deformity under discussion is perfectly apparent, inspection revealing a foot which is plantar flexed, inverted, adducted, the heel small and elevated, and the forefoot broadened. Manipulation without force fails to place the foot in the normal position. The deformity may be of any grade of severity from a very mild one to one in which the soles of the feet face upward and backward, the child walking on the dorsum of the feet.

This brings us to the consideration of the treatment of these very deforming disabilities. If I should attempt to epitomize the treatment of congenital clubfeet, I should say:

Begin early, and secure and maintain overcorrection of the deformity by the simplest effective means.

To amplify a bit:

The overcorrection, namely, placing of the foot in the opposite deformity of marked eversion, abduction, and dorsal flexation, can be much more easily and effectively accomplished during the first few weeks of life, while the skeleton of the tarsus is still largely cartilaginous, and the soft parts pliable, than after ossification has taken place producing an actual bony deformity, the contracted ligaments and muscles structurally shortened, and the overstretched ones less capable of contracting and maintaining correction. It is absolutely necessary, if the outcome is to be successful, to obtain marked overcorrection of each of the three component parts of the deformity. Plantar flexion must be converted into dorsal flexion; inversion into eversion; adduction of the forefoot into abduction. The use of braces or apparatus of any kind is entirely useless unless this overcorrection has been obtained, and they are used for maintaining the foot in the corrected position. When the correction *has* been obtained, the simplest appliance which will maintain it is the one of choice. Personally, I am rather partial to the adhesive dressing, though I use others at times.

Overcorrection is practically always possible by manipulation, either manual or with a club-foot wrench, in the infant; and I believe operations, other than an occasional tenotomy, are rarely indicated in these cases. Certainly no operation accompanied by removal of any part of the tarsus should be done. Older children, those whose deformities have gone uncorrected in the unfounded belief that they would "outgrow" the deformity, more frequently require a plastic operation on the tarsus for their correction.

I do not feel that it would be interesting to you to go into detail concerning the many operative procedures which have been devised to correct cases of long-standing clubfoot deformities. They are all necessary at times, unfortunately, because of neglect of the disability in the first few weeks or months of life, but none of them can compare in their possibility of producing a normal foot, with manipulative correction, in the newborn babe.

The Journal of the Florida Medical Association

Owned and published by the Florida Medical Association.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of Congress of October 3, 1917; authorized October 16, 1918.

Published monthly at St. Augustine and Jacksonville. Price \$3.00 per year; 30 cents per single number.

Contributions for publication in this journal, whether scientific papers or reports of County Secretaries, should be typewritten.

Address Journal of the Florida Medical Association, St. Augustine, Florida, or 201-202 St. James Building, Jacksonville, Fla.

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WASHINGTON MEETING OF THE SOUTHERN MEDICAL ASSOCIATION.

The Southern Medical Association will hold its seventeenth annual meeting at Washington, D. C., Monday, Tuesday, Wednesday and Thursday, November 12-15, 1923. Dr. W. S. Leathers, Executive Officer, Mississippi State Board of Health, Jackson, is President.

This meeting will be made up of twenty sections and conjoint meetings—the programs of these meetings will cover every phase of scientific medicine and surgery. (See marked bulletin for names of sections and conjoint meetings.)

The President of the United States will receive informally the members of the Southern Medical Association and their wives, Thursday, November 15th, at 12:30 p. m., at the White House. Of special interest to the ladies will be the reception at the Washington Club on Tuesday afternoon where Mrs. Woodrow Wilson will be the guest of honor. The usual reception to the President of the Southern Medical Association will be held on Tuesday night at the New National Museum, one of the most beautiful public buildings of Washington, a detachment of the Marine Band furnishing the music. Other special entertainments being received.

At the first general session on Monday night, in addition to the address of the President, Dr. Leathers, there will be an address by Dr. Geo. E. Vincent, President of the Rockefeller Foundation, New York, N. Y.; Oration on Public Health by Dr. W. S. Rankin, State Health Officer of North Carolina; Oration on Medicine by Dr. Stewart R. Roberts, Atlanta, Georgia; and Oration on Surgery by Dr. J. W. Barksdale, Jackson, Miss.

A joint dinner by the Section on Surgery and the Section on Radiology, as well as a number of section dinners, will be interesting features of Tuesday evening. The Alumni Reunions, which promise to be an outstanding feature of this meeting, will be held on Wednesday night and it is expected that there will be large groups present from all of the leading medical schools.

Physicians who golf are urged to bring their clubs. There will be a golf tournament at which the usual prizes will be offered. Play will be over the championship course of the Columbia Country Club.

The University of Virginia Hospital, Charlottesville, have already announced special clin-

ics for Friday and Saturday following the meeting. While no definite announcement has been made yet, it is anticipated that Johns Hopkins and the University of Maryland will arrange clinic programs for Friday and Saturday following the Washington sessions.

Washington has many splendid hotels and everyone is assured of comfortable accommodations this year. Special reduced rates have been granted by railroads on the certificate plan. Each member of the Southern Medical Association will receive a certificate without application for it. Any physician who is a member of his state and county medical society, although not a member of the Southern Medical Association, who desires to attend this meeting, can have a benefit of these reduced rates by requesting a certificate from the Association office. In another column reference is made to the plans of the Florida delegation.

In another column reference is made to the Florida delegation.

RESULTS OF CANCER RESEARCH.

The twenty-first annual report ⁴ of the Imperial Cancer Research Fund, just issued, summarizes the results of the work of the organization and indicates the present line of attack on the cancer problem. Vitamin deficiency, even when severe enough to be incompatible with life, has apparently no inhibitory effect on the growth of cancer. A deficiency of the water soluble and fat soluble vitamins, developed under the most stringent conditions, produced no effect as to cancer, but experiments were not performed with the antiscorbutic vitamin C. This was considered too dangerous to permit of application to the treatment of cancer in man. The curious fact is also reported that absence of vitamins from the diet produces atrophic lesions similar to those produced by exposure to roentgen ray and radium radiation. Exposure to radium has a profound effect on intestinal activities, and large doses may lead to severe intestinal lesions. There is also an effect on the blood platelets which, if allowed to continue, is associated with an incurable anemia of the pernicious type. The obesity that sometimes follows small doses of irradiation is related to testicular atrophy and hypertrophy of the interstitial cells.

4. Imperial Cancer Research Fund, Twenty-five Annual Report, 1922-1923, July, 1923, under the direction of the Royal College of Physicians of London and the Royal College of Surgeons of England.

In tissue cultures, the differentiation and loss of differentiation have been reduced to an orderly sequence and can now be reproduced at will. It has been shown that differentiation is absent in cultures of normal kidney and skin when the parenchyma cells are grown in pure culture without the admixture of connective tissue. The addition of a pure culture of connective tissue, however, is quickly followed by typical histologic differentiation, the kidney producing convoluted tubules with bulblike extremities, and the squamous epithelium keratinizing into cell nests. It is virtually impossible, under experimental conditions, to maintain an exact balance between the two tissues in culture; but the sequence of forms presented by squamous epithelium leaves no doubt that in this lies the explanation of the ordinary range of cell forms known in human pathology and in the tar carcinoma of animals. When cultures of undifferentiated mammary carcinoma of the mouse grew in the presence of an abundance of active connective tissue, the large alveolar masses of polygonal cells became broken up into small trabeculae in which a small lumen appeared, and there resulted a loose adenomatous structure that closely resembled developing mamma. When the connective tissue was removed from the culture, the undifferentiated conditions returned. Drew concluded, therefore, that the loss of differentiation is merely a superficial peculiarity of cancer cells. Even when exhibited in the most superlative degree, the loss of differentiation may be replaced by wonderfully perfect differentiation without in any way affecting the essential malignancy of the cells.

Other experiments may possibly lead to some insight into the essential nature of malignant transformation. It is known that tumors and embryonic tissue grow without delay in a suitable medium, but that adult tissues began to proliferate only after a considerable lapse of time. The delay with adult kidney tissue, for example, may be fourteen days. But if an extract of adult minced kidney which has been incubated along with the fluid used for extraction is added to the culture medium, growth begins at once in every case. If the extract is made with ice-cold saline solution without incubation, the delay is as long as it is in cultures made without it at all. Now, if a similar ice-cold extract is made from a rapidly growing transplantable tumor, growth starts as promptly as when the incubated extract of minced kidney is used. It may be, it is said, that malignancy

nant cells produce automatically and continuously growth-activating substances that normal tissues elaborate only in response to injury. The mode of production of these activating substances, Murray believes, is an essential part of the difference between normal and cancerous cells. This conception helps to explain at least the role of irritation in cancrogenesis. It may be imagined, he says, that the specific irritants that are known to lead to the development of cancer set up a slight degree of protoplasmic disintegration which is still compatible with the life of the cell. That sudden change, which, after a long period of irritation, marks the beginning of cancer would then correspond to a change in the protoplasm by which the production of the advancing substance turns from its purely reactive character to a self-acting process, the result of a sort of education of the cells. Deelman has shown that this preparatory stage can be shortened by combining trauma with the application of the specific irritant.

These experiments will be set forth in detail in a forthcoming scientific report, in which Russell's work in obtaining tar sarcomas in rats will also be published.—*Jour. A. M. A.*

FLORIDA DELEGATION TO ATTEND SOUTHERN MEDICAL ASSOCIATION MEETING.

Plans have been perfected for the comfort of Florida's delegation to the meeting of the Southern Medical Association which convenes in Washington November 12th and remains in session through the 15th. Special cars have been provided for the convenience of the Florida delegation and will be attached to the regular train of the Seaboard Railway, leaving Jacksonville on Sunday morning, November the eleventh, at 8:55. The train is due to arrive in Washington at 8:45 the following morning.

The railroads have made an attractive excursion rate of forty-two dollars and fifty-two cents (\$42.52) from Jacksonville to Washington and return with corresponding reduced rates from other points in the State. All members of the profession who have not already done so should make their reservations by communicating with the city ticket agent of the Seaboard Railway, Hill Building, Jacksonville, Fla.

COUNTY SOCIETY NEWS.

PINELLAS.

The members of the staff of the city hospitals have organized an outpatient clinic for the Mercy (negro) Hospital of St. Petersburg, to begin October 1st. A physician and a surgeon will be on duty daily. All patients must report not later than 8 a. m., and a fee of \$1 will be charged those who can afford to pay. All money collected in this manner will go into a fund for the purchase of additional hospital equipment, etc. The Mercy hospital has just been completed and occupied and is thoroughly modern.

Work is progressing rapidly on the \$75,000 addition to the Mound Park (city, white), Hospital.

Dr. Smith of Quitman, Georgia, has recently located in St. Petersburg. His practice is limited to ear, eye, nose and throat work.

DUVAL.

At the October meeting of the Society, Dr. J. L. Kirby-Smith presented a clinical case of severe, widespread, hemorrhagic Herpes Zoster which marked constitutional symptoms.

Mr. Harry W. Reinstine, assistant district attorney, spoke interestingly on "The Legal Phase of Narcotic Control."

We regret to report the closing of the Marvin Smith Hospital.

Confronted by a serious shortage of hospital beds in Jacksonville, we are vitally concerned in the campaign for funds for the enlarging of St. Luke's Hospital and for the efficient maintenance of the plant. The hope of the Hospital Association, as expressed by the director, Dr. Ralph N. Greene, at a dinner served to nearly a hundred of the physicians of Jacksonville in the hospital dining room on the 16th of October, is that sufficient funds may become available for the establishment of a children's department, an obstetrical pavilion, and a neuro-psychiatric department.

ORANGE.

Dr. Sylvan McElroy spent the month of September at Daytona Beach. He and Dr. J. S. McEwan challenge the world in competition in sea bass fishing.

Dr. Mitchell spent the month of September at the Post-Graduate Hospital, New York City.

At the last medical meeting Dr. Coffin presented an interesting paper on "Sleep," which, however, failed in its purpose as it provoked active discussion.

Dr. Selman presented a paper on "Vertigo," and Dr. Edwards gave one on "Glycosuria in Pregnancy."

POLK.

Dr. W. E. Sherman, of Winter Haven, attended clinics of Dr. Seale Harris in Birmingham and Dr. Banking of Toronto on insulin therapy.

The Florida Midland Medical Society held meeting at Bartow on Wednesday, October 24th. They were entertained by the Bartow Chamber of Commerce. About fifty visiting doctors were guests of Bartow for the day.

Following scientific program the following officers were elected for ensuing year. President, Dr. W. R. Groover, Lakeland; Vice-President, Polk County, H. K. Murphy, Mulberry; De-Soto County, H. P. Bevis, Arcadia; Pinellas County, A. J. Wood, St. Petersburg; Hillsborough County, J. W. Alsabrook, Plant City.

Dr. Thos. D. Vasser, a member of the State Board of Medical Examiners, and formerly of Brandon, Florida, has located at Kathleen.

Dr. Lyman G. Haskell, formerly of Auburn-dale, has moved to Mandarin and entered into active practice there.

Dr. H. E. McMurray, formerly of Pierce, is in New York, doing post-graduate work in diseases of children.

INTERCHANGE OF HEALTH OFFICERS IN THE UNITED STATES.

An event which may be fraught with far-reaching consequences for world health is the Third General Interchange of Health Officers arranged by the Health Section of the League of Nations which is now taking place in the United States.

Representatives from France, England, Italy, Russia, Poland, Spain, Holland, Belgium, Greece, Yugoslavia, Germany, Switzerland, Norway, Mexico, San Salvador, Brazil, Chile, and Canada, delegated by their respective governments to participate in a course of study and observation, arrived in America the first week in September and will remain for approximately three months. Until September 22nd the dele-

gates will remain in Washington, studying national health organization as administered by the United States Public Health Service. Following the close of the course of study of the national health agency the delegation of visitors will separate into three groups, one of which will proceed to Virginia, another to North Carolina and a third to Alabama, where about three weeks will be spent in studying state and local health departments. Richmond, Virginia, Raleigh, North Carolina, and Montgomery, Alabama, are the Southern cities which have been selected for study. From there the groups will proceed to Massachusetts, New York and Pennsylvania, respectively, for the purpose of studying the health administration in three Northern States and small cities. Syracuse, New York, Allentown, Pennsylvania, and one of the smallest cities of Massachusetts yet to be designated, will be visited for a short period. Following this the groups will make a study of health administration in three of the large cities of the East, namely, Boston, New York and Philadelphia. Present plans call for a reassembling of the entire delegation in Washington late in November for a final conference.

The present group numbers among its members many of the most eminent sanitarians of the world. France is represented by Dr. L. Aublant, Inspector principal des Services d'hygiene, Dep. de l'Herault, and Dr. F. Bussiere, Director des Services d'hygiene de Montlucon. England is represented by Dr. Thos. Carnwath, D. S. O. M. D., Ministry of Health, London S. W. I., and Dr. Chas. Porter, M. D. M. O. H., St. Marylebone, London. Italy is represented by Dr. F. Piccinni, Ufficio sanitario de Porto, Napoli. Russia is represented by Dr. S. Slonewski, San Epid. Bureau, (2 Malyj-Tcherkassky Perenlok), Narkowzdraw, Moscou; Dr. A. Marzeew, Chief de San. Epid., (Lechnologiczskaja Ulica), Narkowzdraw, Kharkof, Ukraine, and M. Voeykoff, Sanitary Engineer, Narkowzdraw, Moscou. Spain is represented by Dr. R. Fernandez Cid, Inspector provincial de la Sante publique, San Sebastin. Holland is represented by Dr. D. J. Hulshoff Pol, Inspecteur gouvernemental de la Sante Publique, La Haye. Belgium is represented by Dr. van Boeckel, Director du Laboratoire de l'administration de l'Hygiene, Broxelles, and Dr. Enschede, Chef de Service d'Hygiene, Schaerbeek, Bruxelles. Greece is represented by Dr.

Pigos, Director, State Bacteriological Laboratory, Athens, (a. b. s. Greek Legation, Paris). Poland is represented by Dr. J. Batko, Provincial Health Office, (Wojewodski Uv ead Zdrowra), Cracow. Jugoslavia is represented by Dr. Ivo Kuhn, Referent du Ministere de la Sante publique, Belgrade. Germany is represented by Dr. K. Sannemann, Port Medical Officer, Hamburg. Switzerland is represented by Dr. J. Hunziker, Chef du Service d'Hygiene du Canton de Bale-Ville. Norway is represented by Dr. E. Anderson, Medicin de Prefecture, Lillehammer, Norvege. Mexico is represented by Dr. Enrique Orvananos, Government Inspector of Hygiene, Mexico City. San Salvador is represented by Dr. J. Segovea, Director Sanidad San de Salvador. Brazil is represented by Dr. Vasconcellas. Chile is represented by Dr. J. Ducci, of the Faculty of Medicine, Santiago de Chile, and Dr. C. Mayers, Director, League of Social Hygiene, Santiago. Canada is represented by Dr. M. M. Seymour, Med. Deputy Minister of Public Health, and Director of Venereal Disease Control, Saskatchewan.

The delegation is accompanied by Dr. Norman V. Lothian, of the Health Section of the League of Nations. Surgeon-General Hugh S. Cumming, of the United States Public Health Service, delivered the address of welcome to the delegates.

UNDER-NOURISHMENT IN YOUNG CHILDREN

Astounding percentages of under-nourishment and physical defects are found in a group of 6,015 young children of Gary, Ind., studied by the U. S. Department of Labor through the Children's Bureau.

The Gary study is the first investigation by the Bureau of the "neglected age of childhood"—between babyhood and school.

Two reports have been written on the results of this study. The first, called "Physical Status of Pre-School Children," was issued last year. The second, called "Children of Pre-School Age in Gary, Ind.," and dealing with general child welfare conditions, especially nutrition, is now in press.

Results of the second study, recently made public, show the poverty of diet among nearly all the children.

The diets of 6,015 children, all from two to seven years, were classified into five groups, A,

B, C, D, and E, according to their adequacy and suitability for children of these years.

Of the "A" diet the report says:

"The 'A' diet is not one difficult of attainment. It is merely any diet capable of meeting the body's needs and administered with some consideration for the child's age and development. Moreover, such a diet need not be an expensive one—milk, whole cereal, and fruit or vegetable daily being sufficient to allow a diet to qualify in this group—and it is the easiest possible kind of diet to prepare. This being the case it might be expected that the large majority of the children would fall into the 'A' diet group.

"These facts notwithstanding, only 25 of the 6,015 children—less than half of 1 per cent of the total number—were thus fortunate. Furthermore, the number classed as having 'B' diets (probably adequate in food requirements though unsuitable in character and including but a pint of milk) was likewise small, amounting to 8.5 per cent of the whole group. Less than 10 per cent of the children studied, in other words, were receiving diets which appeared adequate to their needs. Almost three times this number (29.2 per cent) had diets (C) whose adequacy was highly questionable; and nearly two-thirds of the entire group (60.5 per cent) were found to have diets plainly incapable of covering all their bodily requirements, 58.4 per cent being in the D group and 2.1 per cent (5 times the percentage of A's) in the extremely inadequate E group.

The report analyzes in detail the use of certain staple foods among the children, for instance:

Only 18.9 per cent of all the children were getting a pint of milk a day and 57.2 per cent had no milk at all to drink. Two-thirds of the entire group were found to drink coffee habitually and 40 per cent to have it more than once a day.

"Milk is not the only desirable food which was little used," the report states, "since vegetables, fruits, cereals, and eggs were likewise conspicuously lacking.

"The extreme poverty of the diets is further shown by the fact that nearly half (45.5 per cent) of them lacked as many as four of the foods usually included in a child's diet."

Slightly over half the children studied were given physical examinations. 64.7 per cent were found to have decayed teeth. 14.9 per cent had bone defects which are the result of a deficiency diet. Only 4.8 per cent had no defects at all. Over a third had more than five distinct physical de-

fects. Children with adequate diets (classed as A and B) made a better showing than the rest of the group. Over four times as high a percentage of these children were free from defects as of the children receiving deficient diets (classed as D and E).

The report also analyzes other conditions affecting children of this age, including community conditions, home and family conditions, housing, economic conditions, child care and hygiene, and dental care.

UNITED STATES CIVIL-SERVICE EXAMINATION.

The United States Civil Service Commission announces the following open competitive examination:

JUNIOR MEDICAL OFFICER.

Applications will be received until December 28th. The examination is to fill vacancies in the Indian Service, at entrance salaries ranging from \$1,000 to \$1,200 a year, plus the increase of \$20 a month granted by Congress, and quarters, heat, and light; in the Coast and Geodetic Survey, at an entrance salary of \$1,020 a year, plus the increase of \$20 a month, and an allowance of \$1 a day for subsistence while serving on board ship, except in the Philippines, where the allowance is \$2.50 a day; and, in the Panama Canal Service, at an entrance salary of \$250 a month.

Applicants must have been graduated from a medical school of recognized standing; or be senior students in such institution and furnish proof of graduation within six months from the date of making oath to the application.

Competitors will not be required to report for examination, but will be rated on their education, training, and experience.

Full information and application blanks may be obtained from the United States Civil Service Commission, Washington, D. C., or the secretary of the board of United States civil-service examiners at the post office or customhouse in any city.

CARBON MONOXIDE AND TOBACCO.

The much-mooted question as to whether the carbon monoxide present in tobacco smoke constitutes a hazard to the smoker in confined indoor spaces seems to have been settled as a result of tests just completed by the Department of the

Interior at the experiment station of the Bureau of Mines at Pittsburgh, which demonstrated the danger to be negligible.

The tests, which were performed in the course of general studies of the Bureau of Mines relative to gas hazards in mines, were made on three men confined in a closed chamber whose dimensions were 1,000 cubic feet. The three subjects puffed merrily for the space of an hour and a half at cigarettes of every variety, Turkish, Egyptian, the old Virginia brand, and the type wherein the smoker "rolls his own." Following this, the smokers drew energetically at an infinite variety of cigars—cheroots, Pittsburgh stogies, black Manilas and Havanas of choice degree. Finally they puffed frantically at pipes, at pipes of clay and cob, at pipes of meerschaum and briar. At the conclusion of the performance the air of the closed chamber had become so smoky that it was impossible to see across the room. The atmosphere was so irritating to the eyes that it was necessary to wear goggles.

Samples of the atmosphere and blood samples of the smokers were then taken for analysis. It was found that in no instance did the carbon monoxide content of air exceed 1/100 per cent. The maximum blood saturation was 5 per cent. Some of the subjects supposedly inhaled their smoke, but the tests indicated that such inhalation, though it may have extended to the bronchial tubes, did not penetrate throughout the lungs. The tests indicate that carbon monoxide hazard from smoking indoors or in mines is negligible in itself, though the Bureau of Mines investigators consider that it may add to the smoker's hazard should he be caught by carbon monoxide from sources such as occur in the mining industry.

COD LIVER OIL IN TUBERCULOSIS. — Experiments carried out in the Hygienic Laboratory of the U. S. Public Health Service to determine the effect of cod liver oil on the tuberculosis of the guinea pig failed to show any definitely beneficial effects. There was no evidence of the deposition of calcium when this element was administered along with the cod liver oil. These results warn against unwarranted optimism and justify critical investigation whenever calcium or cod liver oil are lauded as a specific in tuberculosis. (*Jour. A. M. A.*, June 16, 1923, page 1778.)

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THE JOURNAL

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Florida Medical Association

OWNED AND PUBLISHED BY THE FLORIDA MEDICAL ASSOCIATION

VOLUME X
No. 5

St. Augustine and Jacksonville, Fla., November, 1923

Yearly Subscription, \$3.00
Single Copy, 30c

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THE JOURNAL OF THE FLORIDA MEDICAL ASSOCIATION

PUBLISHED MONTHLY

Volume X

St. Augustine and Jacksonville, Florida, November, 1923

Number 5

ORIGINAL ARTICLES

WHY WE SHOULD DEMAND POISON LABELS ON CONCENTRATED LYE AND WASHING POWDER PACKAGES.

R. C. LYNCH, M. D.

New Orleans,

President American Bronchoscopic Society.

About two and a half years ago there came to my attention one of the most pitiful conditions that a doctor is called upon to relieve. The victim was a little boy, a member of a family of five children, whose father is a man of very moderate salary and whose mother, assisted by a small negro girl, cares for the home.

In the process of cleaning, concentrated lye was used, the can being half empty was left on the kitchen floor. The boy prowling around, found the can and because of the contents, nice white color and its consistency of candy, he proceeded to eat the deadly stuff. The ingestion was followed by a call for help, and another lye patient began its career.

To the nearest druggist a call for help was sent and the child was promptly given an emetic which caused the fluid to burn on its way up just as it had going down.

After the immediate results were over and the sore mouth healed the scared mother regained her composure only to be confronted with a second anxiety.

The child became pale, was losing weight and was very fretful for no apparent reason. For nearly two days nothing could be swallowed, not even water; then he had a vomiting spell and was well for another period of time, only to be followed by a repetition of these attacks, and finally the prolongation of these attacks made it necessary to consult a surgeon who recognized the condition and performed a gastrostomy as a means of rebuilding the starving and water-hungry tissues. This done and the funnel feeding begun, the boy regained a part of his weight, but not near what he should have. Then an attempt

was made to pass a stomach tube, then a soft bougie and finally a stiff bougie, all of which failed to get into the stomach. We then tried a thick bismuth mixture and fluoroscopic examination which disclosed an apparent complete stricture of the esophagus beginning at the line of the crossing of the right main bronchus. A very thin barium mixture with the fluoroscope showed a very faint trickle from this point into the stomach.

Several trials to dilate this stricture finally ended in the decision to wait six months and try again. Time organized the stricture into a firm and unyielding one, and the constant desire on the part of the patient to swallow solids and fluids so dilated the esophagus above the stricture that the pouch thus formed was the size of a large apple. In this shape the boy came to me for relief. Haggard and worn for the lack of food properly prepared, harassed by the multiple annoyances of a gastrostomy tube and a ceaseless craving to eat and drink by the normal way.

Esophagoscopy under general anesthetic showed a large pouch of the esophagus with the membrane fiery red and swollen due to the constant maceration of retained food and secretion, and after a long, patient and careful search we succeeded in the passing of a very fine filiform into the stomach.

Daily esophagoscopy and gradual dilation of the stricture began. I wonder how many medical men, and I am sure only two laymen, the mother and the boy, know what this means. The delays, vicissitudes, trials and interruptions are too numerous to mention.

At one time this child was examined by a pediatrician, and after a careful study of the chest with X-ray, etc., came to the conclusion there was either T. B. or multiple abscess formation.

Careful treatment of the pouch, continuous preaching and education to the mother, persistence and perseverance on the part of the patient, developed that kind of co-operation which means success, and finally after two and one-half years,

this little boy is rewarded by having his tube removed and can now eat soft gruels; though it will be quite some time yet before he can eat solid foods.

Can you see any reason why we should not have the enactment of a law requiring that all cans and packages containing lye should be labeled and also a rigid enforcement of the law? I am sure that you will agree with me that this should be done and I am also sure that every mother in this United States will agree with me if she could see this little boy which is only one of the many.

If I had the time to recount the number of lye cases with esophageal strictures it would fill a volume too big to print and much too big to read.

A man too busy to stop for lunch ran up to a lunch stand for a cup of coffee. This he drank hurriedly and with the coffee a portion of lye that had been carelessly left in the cup in some way. After days of dilatation, much suffering and loss of time from business our efforts finally brought the man to normal. A damage suit promptly put the proprietor of the offending lunch counter out of business. This might suggest to you two more reasons for the enactment and enforcement of such a law.

Have you ever seen an old man with a gastrotomy tube following a lye burn? Can one re-establish swallowing by the natural route in a case of complete stricture of the esophagus when its extent is an inch or more? I have never seen or read of one up to this time. I, like others, have tried this, but always with fatal results.

Concentrated lye and the more diluted washing powders, if not immediately fatal, produce a result that for the extreme of the torture and slowness of death would satisfy the most barbarous of the medieval ages. I wonder why use of this method was not resorted to in those ages.

What a glorious feeling and joy it is to know that the future citizens of your state are protected by the enactment of such legislation as the Lye Bill. It should be an inspiration to every man, woman, father and mother, to see that such a law is enforced even in the most remote districts.

I do hope that Louisiana will join you, and until every state in the Union has joined hands in this one great cause I will feel that our people have neglected the one great stride that will bring about a protection for our future welfare.

LYE LEGISLATION IN FLORIDA.

H. MARSHALL TAYLOR, M. D.

Jacksonville, Fla.

For the information of the physicians of our state who were not present at the last session of the Florida Medical Association it is well to state that the following motion was made and unanimously carried:

"That the Legislature of the State of Florida be memorialized to pass a law regulating the sale of caustic acid, caustic alkalies, and preparations thereof, and mineral or chemical salts intended for household use, including preparations ordinarily described as or called 'lye', and providing penalties for the violation thereof."

A committee was appointed to bring this matter to the attention of the Legislature which was then in session.

It is not my intention at this time to make a report of that committee, but in view of the fact that we are now on the verge of an epoch in child welfare work in Florida, I deem it wise that the results of the efforts of this committee be mentioned at this time.

On May 21st, House Bill No. 218, which accompanies this article, was introduced by the Honorable Amos Lewis, and was promptly passed by both branches of the Legislature, signed by Governor Hardee, and became a law which goes into effect January 1, 1924.

It is a pleasure at this time to express our appreciation and deep indebtedness to our Governor and to both houses of our Legislature for their willingness to make of this emergency legislation.

The fact that this bill went through the House of Representatives and the Senate in two days is an evidence of the unanimity of our legislators toward humanitarian objects.

The two letters which also accompany this article, are further evidence of the co-operation which we may expect from Governor Hardee and Attorney-General Buford.

The humane side of the lye matter is the particular phase which has interested medical men throughout our nation. However, the economics of this question is also of tremendous importance. The annual cost to the state for the hospitalization of children poisoned with lye has to be reckoned with as well as the care of such a large number who are invalided for life and who are incapacitated for self-support. Dr. L. W. Dean has dwelt at length on this point.

At the San Francisco session of the American Medical Association on June 21, 1923, the unregulated sale of lye was regarded as a national menace and was looked upon as sufficiently grave to warrant nation-wide action. On the recommendation of the Reference Committee on Hygiene and Public Health, the following resolution offered by Dr. Burt R. Shurly, delegate from the section on Laryngology, Otology and Rhinology, was adopted, by the House of Delegates:

"WHEREAS, The domestic use of concentrated lye and other caustic alkalis and of corrosive acids, in ignorance of their dangerous properties and treatment in case of accident, is a not infrequent cause of death and of prolonged, distressing and incurable disability, particularly among children; and

"WHEREAS, In the judgment of this house the adoption of suitable methods of packing, labeling and distributing such substances would materially diminish the danger; and

"WHEREAS, Effects to bring about the adoption of such methods by the voluntary action of manufacturers and distributors have given no prospect of success, be it

"Resolved, That it is the sense of the House of Delegates of the American Medical Association, in convention assembled, that in the interest of public health and safety, the packing, labeling and other distribution of concentrated lye and of other caustic alkalis and of corrosive acids should be regulated by law; and be it

"Resolved, further, That the Board of Trustees be instructed to take such action as may be necessary to procure the enactment of such federal and state laws as may be necessary to effect such regulation."

In lending our efforts to the passage of this measure the Florida Medical Association has also complied with the request of the Committee on Lye Legislation of the American Medical Association which recommended that an active campaign be instituted in every state in the Union to obtain state legislation to protect the children from lye by conspicuous labeling with the word "Poison" in capital letters of not less than twenty-four point size. The following is the text of the Lye Bill passed by the Florida Legislature:

AN ACT to Regulate the Sale of Caustic Acid, Caustic Alkalies, and Preparations Thereof, and Mineral or Chemical Salts Intended for House-

hold Use, Including Preparations Ordinarily Described as or Called "Lye," and Providing Penalties for the Violation Thereof.

Be it Enacted by the Legislature of the State of Florida:

SECTION 1. That on and after the first day of January, one thousand nine hundred and twenty-four, it shall be unlawful for any person or copartnership or corporation to sell at wholesale or retail within this State any caustic acids or caustic alkalies or preparations "containing such acids or alkalies" intended for household use, including preparations ordinarily described as or called "Lye," without affixing to the bottle, box, vessel, sack or package containing the same a label printed or plainly written containing the name of the article, the name and place of business of the manufacturer, seller or distributor of such household acids, alkalies or preparations thereof, and in addition the word "Poison," which shall conspicuously appear thereon in red capital letters not less than twenty-four-point size or which shall be affixed thereto as a sticker conspicuously placed.

SECTION 2. The word "Caustic" shall within the intent and purpose of this act be construed to mean any "acids or alkalies in liquid or powdered form of" preparations thereof, or containing free or chemically, unneutralized hydrochloric acid in a concentration of ten (10) per centum, or sulphuric acid in a concentration of ten (10) per centum, or nitric acid in a concentration of five (5) per centum, or carbolic acid (Phenol) in a concentration of five (5) per centum, or oxalic acid in a concentration of ten (10) per centum, or acetic acid in a concentration of twenty (20) per centum or hypochlorous acid (calax Chlorinata bleaching powder or chloride of lime) in a concentration of one hundred per centum (100), or potassium hydrate (caustic potash Vienna paste pearlash potassa carbonas) in a concentration of ten (10) per centum, or sodium hydrate caustic soda (concentrated lye) in a concentration of twenty (20) per centum, or silver nitrate (lunar caustic) in a concentration of five (5) per centum.

SECTION 3. Any person or copartnership or corporation violating section one of this act is guilty of a misdemeanor, and upon conviction shall be sentenced to pay a fine of not more than one hundred dollars and the costs of prosecution, or imprisonment of not more than 90 days.

SECTION 4. This Act shall take effect upon its passage and approval by the Governor.

Approved by the Governor and filed in office of Secretary of State June 7, 1923.

This measure works no hardship on the lye manufacturer nor any pecuniary sacrifice on the part of either the wholesale or retail grocers. The Committee on Lye Legislation of the American Medical Association calls attention to the fact that there is no reason why the labeling of corrosive poisons sold by lye packers should be left to the option of the seller when the druggist is compelled by law to attach a poison label to corrosive poison he sells. Such an argument they state would imply that the druggist is less trustworthy than the lye packer. This committee is of the opinion that in all matters of public health, legal enactment should come first, for with that backing, commercial co-operation and public education are developed rapidly.

Dr. Wm. B. Chamberlin, in his address as chairman of the Section on Laryngology, Otolaryngology and Rhinology, of the American Medical Association, states as another reason why the distributors of lye should respect this law relative

to the labeling of lye, that in addition to the fine imposed any individual injured or poisoned from the contents of improperly labeled containers of lye may now sue the distributor for personal damage.

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AMERICAN WHOLESALE GROCERS' ASSOCIATION

407-412 CONSOLIDATED BUILDING

JACKSONVILLE, FLORIDA

October 23, 1923.

TO THE WHOLESALE GROCERS OF FLORIDA.

Gentlemen:

An Act to Regulate the Sale of "Lye".

I deem it of the greatest importance that your attention should be drawn at this time to the above Bill, passed at the last session of the Florida Legislature, which law becomes operative on January 1, 1924.

You will note this law requires, in short, that every package of lye sold in the State of Florida shall carry thereon a POISON label, in 24 point type - in RED capital letters.

A copy of the Bill is enclosed.

You will, I have no doubt, desire at this time to bring this Bill to the attention of the manufacturers from whom you are purchasing lye, potash, etc., in order that the labels on the product you will sell after January 1, 1924 shall conform with the provisions of the law.

I can conceive of no more important legislation than that embodied in this Act and am confident that all of our people as well as the manufacturers of lye themselves will prove most responsive to this effort of the authorities to safeguard the life and physical welfare of men, women and little children. As both an economic and humanitarian movement, it is to be hoped that every state in the Union and the Federal Government as well, will fall in line with the states that have already enacted this POISON WARNING law.

Respectfully submitted,

AMERICAN WHOLESALE GROCERS ASSOCIATION,

J. H. McLaurin,

President.

It is to be hoped that the commercial interests in our state will co-operate in this measure which has but one aim, the avoidance of inexpressible suffering to the unfortunate and innocent children who have the misfortune to be invalidated for life or to die in the tortures of acute lye poisoning.

I am pleased to report that we have the earnest and valuable co-operation of Mr. J. H. McLaurin of Jacksonville, president of the American Wholesale Grocers' Association. The letter embodied in this article, which Mr. McLaurin has given me his permission to publish, will have a tremendous influence throughout the nation as well as in our state.

CARY A. HARDEE
GOVERNOR

L. B. EDWARDS
SECRETARY



STATE OF FLORIDA
EXECUTIVE DEPARTMENT
TALLAHASSEE

October 9th, 1923.

Dr. H. Marshall Taylor,
Jacksonville, Florida.

Dear Dr. Taylor:

My attention has been called to an Act passed by the last Legislature requiring that preparations containing caustic alkalies should be labeled as to the name of the article, name and place of business of the manufacturer, seller or distributor of such household acids, alkalies or preparations thereof and in addition, the word "Poison" conspicuously placed on the label in red letters. This Act becomes effective on and after the first day of January, 1924.

The necessity for this legislation is quite apparent. There are numerous cases of children who unknowingly take caustic acids resulting in death or at most physical impairment for life. We would be recreant to the higher duties imposed upon us if we did not use every effort possible in preventing cases of this kind. The Act above referred to was passed by the Legislature in the hope that by proper labeling of caustic alkalies and all preparations containing the same should be very carefully guarded, thus preventing innocent children from becoming victims of its hurtful effects.

Under the law failure to comply with the provisions requiring proper label is punishable as a misdemeanor and I shall expect, of course, a literal compliance with the law when it becomes effective.

Thanking you for your interest in the subject and with personal regards, I am

Very truly yours,

Cary A. Hardee
Governor.

CAH/AB

In a recent communication from Dr. W. C. Woodward, executive secretary of the Bureau of Legal Medicine and Legislation, of the American Medical Association, the following statement was made: "The enforcement of the laws that have been enacted in Florida and Pennsylvania will contribute materially toward safeguarding the people not only of those states, but of all others, because packers and jobbers will probably

find it to their advantage to prepare their products in accordance with the most rigid requirements of those states even though it may not be intended for use in either of them, so that it may be salable not only there but in all other jurisdictions. The enactment of the laws by Florida and Pennsylvania will prove of service to the people of the country generally."



RIVERS BUFORD
ATTORNEY GENERAL

STATE OF FLORIDA
OFFICE OF THE
ATTORNEY GENERAL
TALLAHASSEE

October 10, 1923.

Dr. H. Marshall Taylor,
Jacksonville, Fla.

Dear Sir:

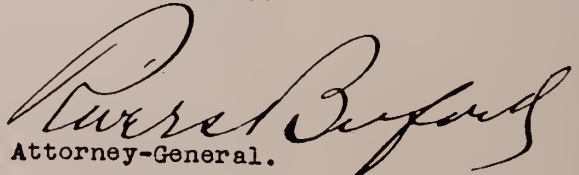
I am very much gratified to observe that the physicians throughout the State, as well as the different medical organizations, are evincing interest in the enforcement of the statute requiring all packages containing potash or lye to be labeled "Poison".

I have been shocked by the knowledge that so many young lives are being destroyed by children innocently or ignorantly taking into their systems this health destroying and death dealing agency. I had no idea that the destruction of health and life from this cause could be anything like what it is.

It is, of course, the duty of the law officers throughout the State to enforce the law and to bring to the bar of justice those who violate it, but it is also the duty of every citizen and, especially of the physicians to call attention to dealers as well as to users, of the great danger which lurks in every package of this stuff and to report to the law officers every infraction of the statute.

I shall be pleased to cooperate with the medical organizations and other interested persons in procuring the absolute enforcement of the label statute.

Yours very truly,


Attorney-General.

With the enactment of this bill it is to be hoped that all will realize that the campaign has just begun. Every physician in our state as well as our Board of Health should aid in educating the public in the dangers of caustic alkalies and the great necessity of making them inaccessible to small children.

I am confident that every physician in Florida joins me in acknowledging with gratitude the wise counsel Dr. Chevalier Jackson has given us in this effort toward child welfare in our State. Only through his ceaseless and untiring effort has lye legislation been made practical and possible. Dr. Chamberlin has well said that Dr. Jackson's attitude in this cause has been another evidence of the altruistic spirit which distinguishes and glorifies medicine.

ESOPHAGEAL STENOSIS FROM CAUSTIC LYE—AS SEEN BY THE ROENTGENOLOGIST.

W. McL. SHAW, M. D.,
Jacksonville, Florida.

The cases presented here have been selected in an attempt to illustrate several types of cicatricial stenosis of the esophagus caused by lye burn. The Wassermann reaction in each case was negative. They are all cases more or less of long standing as practically all coming for roentgen study are of the chronic type where strictures have already manifested themselves.

The task from the roentgenologist's point of view is establishing the fact that actual pathology exists in the esophagus, and how extensive it is. But accurately localizing the lesion as an aid to the surgeon is not always an easy one. It must be remembered that these cases are usually in a highly nervous condition, weak from loss of weight and lack of food. They have sometimes gotten to the point where they are afraid to swallow from past painful experiences in choking. The majority, though, are usually ravenous for food and water and eager to try anything in the faint hope that a little may leak through to the stomach. These are those with complete stenosis, as a rule.

The diagnostic work has necessarily to be done with great rapidity lest they regurgitate the opaque solution from the esophagus, or even vomit it, as is sometimes done, with great force. These cases are always studied both by direct

observation with the fluoroscopic screen and by films made in several different positions, such as antero-posterior, lateral, oblique, and postero-anterior. We have always used two solutions of opaque media, one just a little thicker than ordinary fresh buttermilk, and the other a very



FIG. 1. CASE I. Several weeks following gastrostomy.

thick mixture. We find the barium buttermilk mixture adaptable to this work.

CASE 1.—Miss L. L.

Clinical History: This patient unfortunately drank some lye two years before admission. She was admitted on The Bronchoscopic Service at St. Luke's Hospital, Jacksonville, Fla., August 18, 1923. Age 16, height 5 feet, one inch; weight, 58 pounds. Two years ago patient drank a solution of lye from an unlabeled can. Difficulty in swallowing, with progressive emaciation followed. Six months ago patient was able to swallow liquids only with difficulty. Six days prior to admission to St. Luke's a complete aphagia developed. She was carried to the hospital in a state of collapse as a result of inanition and acute water-hunger. A gastrostomy was performed by Dr. E. H. Teeter and there has been a gradual return of strength. The problem of bouginage now presents itself. (See figure 1.)

Roentgen Examination: The roentgen examination covered the esophagus and included fluoroscopic study as well as film study.

Under screen observation, the mouth was filled with a thin mixture of barium and buttermilk, and, when told to swallow, it was seen to pass freely along the course of the esophagus until a point opposite the second dorsal vertebra was

reached where it was seen to pocket in a dilated pouch. No barium passed this point for several minutes, when, after giving a very thin mixture (almost the consistency of fresh buttermilk) a little was seen to trickle through and outline the course of the esophagus with a rather ragged outline as far down as the level of the eighth dorsal vertebra when it stopped again. After several minutes' observation and continued attempts at swallowing, the patient began to cough violently. Screen study now showed a direct communication, filled with the opaque barium, between the esophagus and the right main bronchus at the level of the sixth dorsal vertebra. (See figure 2.) Barium was seen in the right main bronchus and also outlining the smaller bronchi and infiltrating the right lung.

Several films were made of the chest in different positions as rapidly as possible. Study of these gives similar evidence as that noted with the screen. The fistulous opening between the esophagus and right main bronchus is clearly seen as well as the narrowed and ragged esophagus above this point. The barium lying in the smaller bronchi and infiltrating the lung could also be seen in the films. She continued to cough for several minutes and succeeded in bringing up the greater part of the contents of the esophagus and also clearing the respiratory tract to a large extent.

Study of this case extended over a period of thirty minutes, during which no barium had passed through the esophagus to the stomach. Owing to the patient's weakened condition, the examination was terminated at this point. We felt that we were dealing here with a case of complete stenosis of the esophagus and also the very unusual condition of broncho-esophageal fistula from caustic potash erosion.

This case presents a most unusual condition, namely, that of a broncho-esophageal fistula from lye burns in the esophagus. Fistulae communicating between the esophagus and respiratory tract are not rare, but as far as we have been able to learn from a survey of the literature, they have in all cases been either syphilitic, tuberculous, or carcinomatous in origin.

Dr. Chevalier Jackson, relative to this case, says: "A perforation into a bronchus, though common in cancer and lues, and occasionally seen in tuberculosis, is very rare after lye burns," and was kind enough to write as follows as to his idea of treatment of the case: "I would suggest that



FIG. 2. CASE 1. Miss L. L., age 16 years. Ant. Post. View. Complete stenosis of the esophagus at the ninth dorsal vertebra. Bronchoesophageal fistula at the sixth dorsal vertebra. Barium in right main bronchus and several smaller bronchi.

the patient be induced to swallow an opaque string so that you could see it go into the bronchus if a fistula is previous at the time the string is swallowed. If the string passes on into the stomach you would then have an opportunity to use the Tucker retrograde bougies, which would be perfectly safe, when used with skill, and would expedite the treatment very much. If it is not possible to get the string through by swallowing, then I would suggest a retrograde esophagoscopy and pass a bougie up from below. When it reaches the mouth a string could be used and drawn down into the stomach which would give the endless string required for the use of the Tucker bougie."

CASE 2.—N. K.

Family History is negative except for the fact that father and mother could neither read nor write.

Clinical History: A girl, 6 years of age. Four years before entrance to St. Luke's Hospital she swallowed an unknown quantity of lye. Severe burning of the mouth followed, and for a day or two she was unable to swallow anything. A varying amount of dysphagia ensued, extending over a period of four years. Two days before entrance to the hospital a complete aphagia developed. On admission, patient's skin was dry, face drawn,

showing an anxious expression and was in a state of serious water-hunger. Esophagoscopy showed a complete closure of the esophagus opposite the fifth dorsal vertebra. A gastrostomy was done, the patient did not react well and died eighteen hours after operation.

Roentgen Examination: The child was studied carefully under the fluoroscope to try to discover any pieces of bone or other opaque substances in the course of the esophagus. Nothing of this nature was found. Stereoscopic films were also made of the chest with negative findings for anything in the esophagus that might cause the obstruction.

A full mouthful of the thin barium meal mixture was taken, and, under screen observation, she was told to swallow. The opaque solution was seen to descend the course of the esophagus normally to a point opposite the fifth dorsal vertebra where it suddenly stopped. On rotating the patient, this lower level of the filled esophagus was on a level with the third rib anteriorly. There was no great dilation of the esophagus above this point. Two cross marks were made on the skin anterior and posterior opposite the point of obstruction with skin ink for guidance of the surgeon. After a very few minutes (possibly three) about three-fourths of the opaque solution was rather forcibly vomited. No coughing. She was given more of



FIG. 3. CASE II. N. K., age 6 years. Complete esophageal stenosis with ragged and sacculated appearance of lower end.

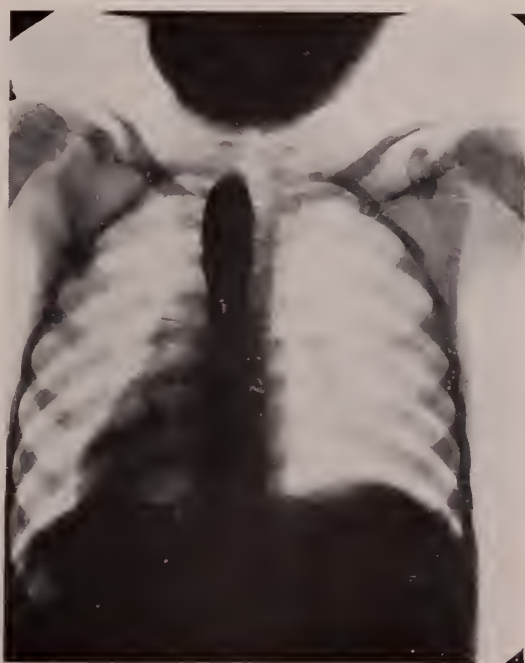


FIG. 4. CASE II. N. K., age 6 years. Complete stenosis of esophagus with serrated lower border and slight dilatation above stricture.

the barium mixture and several films made immediately in different positions before she again vomited. Figures 3 and 4 show lateral and antero-posterior views of the chest. These films gave corroborative evidence to the screen study and also showed the lower border of the filled portion of the esophagus to taper sharply to a point about the size of a lead pencil. This was the appearance in the antero-posterior view, while the oblique and lateral positions showed the lower border sacculated into three pockets. Any amount of vomiting did not dislodge all of the barium or change the appearance of this lower end. It was felt that we were dealing with a complete stenosis of the esophagus as none of the very thin mixture had seeped through to the stomach after forty-five minutes' observation. A diagnosis of complete esophageal stenosis was made and the upper border of the stricture localized.

CASE 3.—L. V. A colored man, aged 24, was admitted to the Duval County Hospital because of inability to swallow either solid food or liquids. He stated that the night before he had been eating a meal of spare-ribs and felt that a piece of meat had "lodged in his throat," and since that time he could swallow nothing. Further questioning brought out the fact that he had been subject to just such "choking spells" before, and the following history was obtained: When 3 years of age he drank some of the contents of a can of lye which was in the back yard where his mother was washing clothes. Seven years later he developed an aphagia and for seven days was unable to swallow either solid food or liquids.



FIG. 5. CASE III. L. V., age 24 years. Complete esophageal stenosis. Oblique view. Folding of upper end of esophagus upon itself; also point of stenosis with ragged border.

Again, when he was 17 years old, he developed a dysphagia and for several days he could swallow only liquids. This time esophagoscopy bouginage was carried out. On entrance to Duval County Hospital patient was suffering from an acute water-hunger. Esophagoscopy revealed a marked narrowing of the lumen of the esophagus. Esophagoscopy bouginage was undertaken with favorable results.

Roentgen Examination: Fluoroscopic study was made of the chest and abdomen as usual, preliminary to making films, emphasis being put on the mouth, throat and course of the esophagus. Nothing suggestive of bone or any other foreign body was noted. Several films made over the throat, chest and abdomen gave no evidence of foreign body.

An ordinary barium meal was then given, and, under screen observation, the opaque solution was seen to descend normally the esophagus until a point about the level of the seventh dorsal vertebra was reached, at which point it abruptly stopped. The lower border of the column of barium in the esophagus was ragged and had the appearance of covering over or overlapping some particles of food. He was unable to pass any of the barium on into the stomach, and, after a very few minutes, regurgitated practically the entire contents of the esophagus along with a quantity of mucus. More of the meal was given and several films made. (See figures 5 and 6.) There was no dilation above the point of obstruction, but there appeared to be an overlapping on itself of the upper end of the esophagus several inches above the pathological point. At no time was



FIG. 6. CASE III. L. V., age 24 years. Complete esophageal stenosis. Esophagus not dilated above stenosis.

there noted any barium passing on into the stomach. Study was continued for a period of about forty-five minutes, throughout which the stomach remained empty. This appeared to be a complete stenosis. In this case, it was difficult to state just where the upper end of the stenosed esophagus began because of the probability of there being more or less food lodged in the esophagus above the actual stricture, this making it impossible for the opaque solution to reach the last point of normal lumen. A diagnosis of esophageal stenosis following potash burns was made.

This case is reported because it is a good example of a more or less large number of these unfortunates. Here was a grown, healthy-looking man, pursuing his trade of a butcher in apparent perfect health only to be suddenly thrown on the sick list and placed in a more or less helpless condition at irregular intervals throughout his life. These come on from no carelessness of his own, but, nevertheless, he ceases to be a breadwinner and instead is a liability on the hands of the community.

CASE 4.—D. W. Age 6 years.

Clinical History: When two years old, he swallowed lye. Details of accident unobtainable. Ad-

mitted to St. Luke's Hospital shortly afterwards where gastrostomy was performed. He improved and adjusted himself to taking food through the tube. For a period of four years, he has been coming back at irregular intervals for bouginage. He improved to where he could swallow liquids and soft foods. His gastrostomy tube was removed, and, when discharged, strict instructions to return at the first indication of trouble were given.

Satisfactory reports have been received from his parents since his discharge over a year ago. The report of the roentgen findings represents only the last examination made prior to discharge. This case represents what can be done for these patients if gotten early and closely observed over long periods with repeated bouginage when indicated.

Roentgen Examination: Screen study showed a large feeding tube in the cardiac end of the stomach. The usual thin mixture of barium was given and observed to travel down the esophagus readily and on into the stomach. At first, there was no evidence of obstruction other than a moderate dilation of the upper half. Films were made in several positions in the act of swallowing with the esophagus full. (See figures 7 and 8.) Study of these shows a stricture of the esophagus reaching from about the seventh to the ninth dorsal



FIG. 7. CASE IV. D. W., age 6 years. Partial stenosis of esophagus after dilatation at the level of seventh to ninth dorsal vertebrae. Stomach filled through the esophagus.

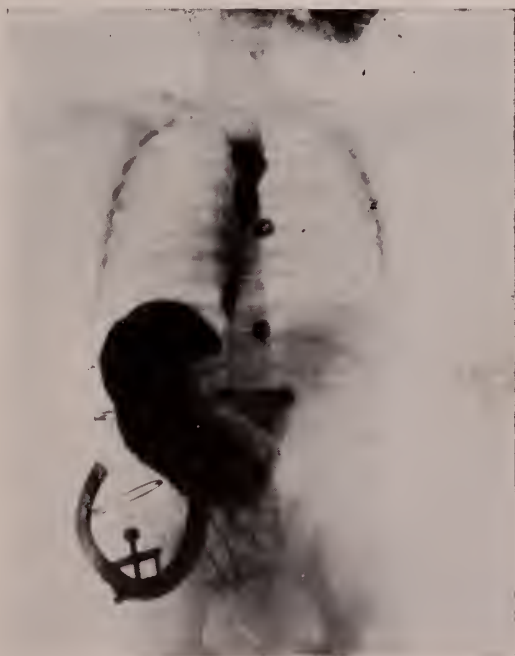


FIG. 8. CASE IV. D. W., age 6 years. Partial stenosis of esophagus from seventh to ninth dorsal vertebrae. Stomach filled with barium. Stomach tube in place.

vertebra. As a large amount of barium had already passed into the stomach, we considered the scar a marginal one rather than an annular one.

REMARKS.

This is a review of a preventable condition and yet it is only a few of the thousands who are either fatally burned or else injured for life by the ingestion of lye. The majority of these cases are in this pitiable state for the reason that the laity generally have not been sufficiently warned as to the poisonous nature of household lye. With our state legislation and a nation-wide educational propaganda that lye should be kept out of the reach of children, this distressing condition could be made to become an extremely rare occurrence.

These cases were studied on the services of St. Luke's Hospital and the Duval County Hospital of Jacksonville. I wish to acknowledge and to express my appreciation to Dr. L. W. Cunningham and the other members of the staffs of these institutions for their co-operation and assistance, and to Dr. H. Marshall Taylor for the esophagoscopic findings.

THE TREATMENT OF DIABETES WITH THE AID OF INSULIN*

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The marvelous story of the discovery and perfection of insulin, because of its vast importance, has become a subject of almost universal knowledge. Hence, it will suffice to give a very brief summary of the events leading up to its discovery, practical application and commercial production.

The important work of Von Mering and Minowski¹, Allen², and others, long since proved that extirpation of the pancreas in healthy dogs gave rise to a condition which, in every essential respect, resembled diabetes mellitus. This fact gave weight to the belief that diabetes was occasioned by the absence of some substance which was produced by the normal pancreas. Numerous attempts were made by various workers to obtain this substance experimentally, but none of

these efforts were rewarded by complete success. It remained for Banting and Best³, working in the laboratory of Dr. J. J. R. MacLeod in the Physiological Laboratory of the University of Toronto, to obtain this substance experimentally, and to make the practical application of their discovery.

The early isolation of the active extract of the pancreas was performed by Banting and Best⁴, as follows: A ligature was placed about the pancreatic duct of a dog, giving rise after a period of several weeks to atrophy of the acinous portion of the pancreas, but leaving the tissue of the islands of Langerhans undamaged. Upon removal of this atrophic pancreas and its extraction with Ringer's solution, an extract was obtained, which, when injected into previously depancreatized diabetic dogs caused a definite lowering of the blood sugar and a decrease or cessation of glycosuria. The method of obtaining an active extract was submitted to many changes and improvements, and finally, with the assistance of J. B. Collip and E. C. Noble, a purified extract, practically free from injurious protein derivatives and suitable for human administration, was obtained. A complete description of the methods employed may be found in the original publications of the above workers.

The treatment of the first case of human diabetes was carried out by Banting, Best, Campbell and Fletcher⁵ in the clinic of Dr. Duncan Graham at The Toronto General Hospital and was attended with the same remarkable results as observed in the experimental observations upon dogs.

Following a protracted period of carefully controlled experimentation, insulin was produced commercially and supplied to various diabetic clinics in this country and Canada for further experimental observation. Insulin is now being furnished commercially by the Connaught Antitoxin Laboratories of the University of Toronto, and by Eli Lilly and Company of Indianapolis, Indiana, under the supervision and control of the Insulin Committee of the University of Toronto. The authors take great pleasure in expressing their indebtedness to the Insulin Committee and to Drs. H. H. A. Clowes and A. L. Waters of the Eli Lilly and Company for many favors and for furnishing the supply of Insulin (Lilly) which was used in carrying out the experimental work, the report of which follows:

*Presented before the Fiftieth Annual Meeting of the Florida Medical Association, held at Jacksonville May 15, 16, 1923.

Insulin (Lilly) is now supplied to the profession in ampoules of two concentrations; that designated as H₁₀ contains 10 units per cubic centimeter; H₂₀ contains 20 units per cubic centimeter. One unit represents one-third of the dose necessary to lower the blood sugar of two kilogram fasting rabbit below 0.045 per cent in from two to five hours.

The mechanism by which insulin produces its effect is as yet undetermined. With its clinical use it is possible to maintain the blood sugar at a normal level and keep the urine sugar-free. It has been experimentally proved that this is accomplished in some manner by increasing the ability of the diabetic organism to oxidize glucose, and thus insulin may assist in the utilization of the glucose derived from protein and fat as well as from carbohydrate. Concomitant with the proper utilization of glucose, the normal oxidation of the fatty acids available from protein and fat takes place, and in this way the development of acidosis is prevented and the urine kept free from acetone and diacetic acid. The amount of glucose oxidized by one unit of insulin varies with the severity of the diabetes, ranging from about one gram in severe cases to three or four grams in mild cases. Probably as a result of this normal metabolism, there is an accompanying feeling of marked improvement and well-being on the part of the diabetic individual.

Dosage: Before determining upon the dose of insulin to be administered in a specific case, it is advisable to first arrange a suitable diet which will serve as a basis of testing the patient's ability to utilize glucose. It has usually been our custom to calculate and give an adequate diet at the very beginning in uncomplicated cases without acidosis, supplying a diet for adults, which will yield about thirty-five calories per kilogram of body weight, with proper attention to the glucose, fatty-acid ratio of the diet. As an example we may choose a patient weighing 132 pounds (naked). $132 \div 2.2 = 60$ kilograms. $35 \text{ calories} \times 60 = 2100$ calories, the amount of energy which we wish to supply from the diet in 24 hours. Since one gram of protein per kilogram of body weight is sufficient to maintain nitrogen equilibrium, 60 grams of protein will be used in the diet. It is now necessary to determine the amount of carbohydrate and fat necessary in the diet, in such a ratio as not to give rise to acidosis. This safe ratio is approximately one gram of available

glucose to one and one-half grams of available fatty acid, calculated as follows:

Carbohydrate=100 per cent available glucose.

Protein=58 per cent available glucose; =46 per cent available fatty acid.

Fat=10 per cent available glucose; =90 per cent available fatty acid.

Having determined upon 60 grams of protein, we test the calculation of the empirical formula: carbohydrate, 70 grams; protein, 60 grams; fat, 180 grams.

		<i>Available glucose.</i>	<i>Available fatty acid.</i>
Carbohydrate	..... 70 gms.	= 70	..... 0
Protein	..... 60 gms.	= 34.8	..... 27.6
Fat	..... 180 gms.	= 18	..... 162.0
Totals	.....	122.8	..... 189.6

$189.6 \div 122.8 = 1.54$, or a safe ratio of available glucose to available fatty acid. The caloric value is satisfied also:

1.0 gm. carbohydrate yields 4 calories;

70 gms. 280 calories

1.0 gm. protein yields 4 calories; 60 gms. 240 calories

1.0 gm. fat yields 9 calories; 180 gms. 1620 calories

Total 2140 calories

The patient then receives this diet for two days, during which time we may assume that the urine volume averages 3,000 c.c. for each twenty-four hours and contains an average of 1.4 per cent of sugar, or 42.0 grams of sugar each twenty-four hours. Since the diet furnishes 122.8 grams of available glucose, and the urine shows a waste of 42.0 grams of glucose, this individual's glucose tolerance is 80.8 grams, and we must furnish sufficient insulin to oxidize the 42.0 grams of glucose which would otherwise be excreted. In order to remain within safe limits we administer, to begin with, approximately one unit of insulin for each four grams of glucose excreted. In a case such as the example, the patient would receive five units of insulin thirty minutes before breakfast and five units thirty minutes before supper. The urine probably would not become sugar-free upon this dosage and a further increase of one unit each dose would be made until the 24-hour specimen of urine was sugar-free. In more severe cases a third dose of insulin might be necessary before the mid-day meal, while in milder cases one dose each day would suffice. When three doses of equal strength are employed the available glucose of the diet may be equally distributed between the three meals; when one or two doses are given each day, the available

glucose of the meal before which the insulin is injected should be greater than in those meals prior to which no dose is given. It is often very helpful to collect and test separately all specimens of urine voided in order to determine at what time sugar appears in the urine so that an increase of the insulin dosage which is administered before the time of the appearance of sugar can be made. A more detailed account of the method of determining upon a satisfactory and safe diet can be found in the articles by Wood-yatt, Strouse, Holmes, Wilder, and others⁶.

Administration: Insulin is best administered subcutaneously; it may be given intravenously, but there is no particular advantage to be gained by this method. Occasionally, during the earlier days of commercial production, there occurred a local reaction at the site of injection due to the protein contained in the extract; this rarely resulted in the formation of a sterile abscess. Urticaria was also sometimes seen in patients receiving large dosage. Since the extract is now obtained practically free from protein, none of these reactions need be anticipated. The time of administration, in relation to the meal hour, has already been referred to; if more convenient, there is no objection to giving the dosage just after meals. In some of our cases it has been possible to decrease the dosage of insulin, or even omit one or two doses; in one child it has been possible to discontinue the drug altogether, in spite of which the blood sugar remains normal on his former diet. This would suggest that in some cases a definite improvement in tolerance takes place, probably as a result of the rest afforded the pancreas.

Precautionary Measures: Some individuals have obtained erroneous impressions about insulin. Although certain cases display a remarkable improvement in tolerance with its use, no cure has been reported. Further, careful dietetic control is even more important than without the use of insulin; the dosage is determined upon the assumption that the patient will ingest a definite quantity of glucose each day, and if this required amount is not taken an hypoglycæmic reaction will probably occur. On the other hand, insulin is no more dangerous than ether or morphine in the hands of those who are not familiar with their actions and limitations.

Hypoglycæmic Reaction: This is due to an overdose of insulin; it may occur in an instance

where a patient receives too large a dose, or had received his dose of insulin and then refused to eat or could not eat his meal. It occurs as a result of the blood sugar falling to .070 per cent or less, and can be avoided or relieved by the ingestion of some form of glucose. The symptoms usually come on about two to four hours after the dose which produces them; they are extreme weakness, a feeling of prostration, profuse sweating, anxiety, increased pulse rate and increased rapidity of respirations. If the reaction is permitted to go on the individual may pass into coma, display muscular twitchings or convulsions and death may occur. As already stated the antidote is carbohydrate; the juice of an orange, a glass of milk, or several pieces of chocolate candy will relieve the symptoms almost instantly. If coma has already appeared, ten or fifteen minims of a 1/1000 solution of adrenalin chloride subcutaneously will rouse the patient sufficiently to drink orange juice. The intravenous injection of 50 c.c. to 100 c.c. of a 20 per cent solution of glucose may be necessary. The authors, in treating more than forty cases, have not seen a serious reaction and feel that there is no reason why they should be allowed to occur.

Coma: The results obtained with insulin in diabetic coma are quite spectacular. The treatment consists of the administration of ten or fifteen units of insulin every two or three hours. It is important that the urine should *not* be allowed to become sugar-free during this frequent administration of the drug. If the patient can be roused they should take the juice of one or two oranges each hour; in cases of deep coma or vomiting, glucose should be given intravenously in a ratio of about three grams of glucose for each unit of insulin. Treatment should be maintained until the urine is free from acid bodies and the symptoms have been relieved.

Several cases are reported here in some detail to show the method of treating (1) an uncomplicated case, (2) a case with acidosis, (3) a case of coma.

CASE C-168.—J. M., white, male, aged 17 years, 1 month. Was first seen January 26, 1921.

The Complaint was diabetes.

Family History was unimportant. There had been no diabetes or obesity in the family.

Past History was negative, except for measles at the age of 6 and otitis media at the age of 8 years. His average weight had been 84 pounds, (dressed).

Present Illness: During December, 1920, at the age of 14 years and 9 months, the patient became jaundiced and started to experience excessive thirst. Sugar was first discovered in the urine about one month later.

Physical Examination revealed nothing of importance except a furuncle of the left auditory canal with rather extensive invasion of the surrounding tissue. A casual specimen of urine contained 1.3 per cent sugar and gave a three-plus reaction for diacetic acid.

Course: Under treatment he rapidly became sugar-free and displayed a high tolerance. He did not adhere to his diet and gave up medical supervision. In January, 1922, he again required treatment for an infection of the left auditory canal, from which he rapidly recovered and regained a fair tolerance. In September, 1922, the patient again came under observation, weighing 73 pounds and showing a constant glycosuria.

Insulin Therapy was begun, but after a few days the patient discontinued treatment and left the hospital. He was next seen January 7, 1923, weighing 59 pounds and with blood sugar of 255 mg. per 100 c.c. He was started on a diet of carbohydrate 20 grams, protein 40 grams, fat 100 grams, or about 40 calories per kilogram and one unit of insulin three times daily at meal time. This diet was gradually increased to carbohydrate 40 grams, protein 70 grams, fat 150 grams, and the insulin dosage to 15 units after breakfast and 15 units two hours before supper. After 38 days in the hospital he was discharged on the above diet and insulin dosage, sugar-free, with a blood sugar of 250 mg. per 100 c.c. and weighing 65 pounds. He has remained constantly sugar-free and on April 28th his blood sugar was 120 mg. per 100 c.c. and his present weight is 98 pounds, (dressed).

CASE C-3243.—E. R., white, male, aged 5 years, 7 months, was seen November 14, 1922.

The Complaint was diabetes.

Family History was unimportant. There had been no diabetes or obesity in the family.

Past History was negative except that the patient had had chicken pox at the age of 18 months, complicated by suppuration of several cervical glands, and an attack of tonsilitis one year previously. His greatest weight had been 40 pounds, prior to the onset of diabetes.

Present Illness: About August 8, 1921, at the age of 4 years and 11 months, the patient started to exhibit frequent enuresis and polydipsia. Sev-

eral days later sugar was discovered in the urine. He was placed on a diet with practically no restriction of carbohydrate. In September, 1922, he became stuporous and drowsy for a time, but recovered. His height at the onset of diabetes was about 42 1/2 inches.

Physical Examination revealed no abnormality except marked general tenderness of the abdomen and a strong acetone odor of the breath. Naked weight was 31 pounds. A casual specimen of urine showed 5.0 per cent sugar and three-plus diacetic reaction. The blood sugar was 400 mg. per 100 c.c. He was unable to walk or stand because of weakness.

Course: The patient was placed at once in the hospital, and given a diet of carbohydrate 30, protein 20, fat 20. *Insulin Therapy* was started at once with a dosage of two units three times daily at meal time. The first four days the urinary sugar excretion varied between 11 and 25 grams daily, while the diacetic reaction rapidly decreased. On the sixth day the insulin dosage was increased to three units three times daily and on the following day the urine was free from sugar and diacetic acid. This dosage was maintained and the diet was gradually increased to carbohydrate 50, protein 50, fat 80, without sugar or diacetic acid reappearing in the urine. On the 24th day the patient was discharged upon the same diet and insulin dosage with a blood sugar of 105 mg. per 100 c.c. and weighing 33 1/4 pounds. This diet yielded about 75 calories per kilogram of body weight. On January 26, 1923, the insulin dosage was decreased to three units at 9:00 a. m. and three units at 5:30 p. m., and the diet maintained the same. This patient has been constantly sugar-free, has displayed no diacetic acid in the urine and on July 23, 1923, he weighed 42 3/4 pounds (dressed), and his height was 44 inches. He now runs and plays like a normal child. This case is illustrative of the type in which one must start the diet cautiously because of acidosis.

CASE C-3414.—T. P., male, white, single, occupation weaver, aged 17 years, was seen April 15, 1923, in consultation in an adjoining town.

The Complaint was diabetes, and diabetic coma.

Family History was negative for diabetes and obesity.

Past History was essentially negative.

Present Illness began about March 1, 1923, with excessive dryness of mouth, polyuria, poly-

phagia, polydipsia and progressive weakness. On April 14th the patient went to bed because of extreme weakness and abdominal pain and vomiting. When examined by his physician sugar was found in the urine. The following day the pain and vomiting had disappeared, but the patient had become rather drowsy and was roused with some difficulty. He had had no fever.

Physical Examination: The skin was quite dry. There was a slight acetone odor of the breath, the respirations were rather deep and quite rapid, and the pulse was rapid and of poor volume. There was no elevation of temperature. The knee kicks were not obtained. A casual specimen of urine gave a marked test for sugar but showed no diacetic acid. The hæmoglobin and red blood-cell count were normal. The white blood-cell count showed 23,200 leukocytes, of which 82 per cent were polymorphonuclear neutrophils. A blood-sugar reading of 130 mg. per 100 c.c. had been obtained by the Epstein micro-method, but this was considered unreliable. The patient had received nothing by mouth during the preceding 24 hours except water and a quantity of sodium bicarbonate.

Treatment: In spite of the conflicting evidence it appeared that the patient was passing into diabetic coma. He was given 200 c.c. of orange juice and 15 units of insulin simultaneously. Thirty minutes later the same dose of orange juice was repeated and two hours after the first dose of insulin 15 units more were administered. The usual methods for combatting coma such as warmth, forcing fluids, free evacuation of bowels, etc., were instituted at the same time. Directions were left for the patient to receive 10 units of insulin every three hours and about three grams of carbohydrate to each unit of insulin, preferably in the form of orange juice, until symptoms disappeared. In case of vomiting glucose was to have been administered intravenously. During the first 21 hours of treatment the patient received the juice of 20 oranges, yielding about 200 grams of carbohydrate and 80 units of insulin during the same interval of time. This routine resulted in the complete disappearance of all symptoms of coma, and no hypoglycemia developed, as demonstrated by the persistence of sugar in the urine. Food was then administered cautiously, but the exact diet formula is not known as the food intake was not weighed. A blood-sugar determination upon the same blood which had yielded 130 mg. per 100 c.c. by the

Epstein method, was performed in our laboratory by the method of Folin and Wu upon the following day with a reading of 740 mg. per 100 c.c. of blood. A specimen of blood plasma obtained immediately after the first dose of insulin gave a carbon dioxide combining power of 26.6 mm. of mercury, and a plasma-sugar reading of 800 mg. per 100 c.c. of plasma. We have learned from the attending physician that the patient, although not sugar-free, is doing very well, except for a discharging ear which developed the day after the patient was seen in consultation. A blood-sugar reading performed in our laboratory upon a specimen of blood received by mail on April 27th gave a result of 148 mg. per 100 c.c.

It should be emphasized in closing, that not every case of diabetes should receive insulin therapy; it should be reserved primarily for those individuals who cannot tolerate a maintenance diet and carry on their bodily activities without excreting sugar in their urine. The mild cases of diabetes require dietetic management and education, and if they are thus able to remain sugar-free, maintain an almost normal weight, and have sufficient strength to carry on their occupations, they are not subjects for insulin therapy.

BIBLIOGRAPHY.

- (1) Von Mering, J., and Minkowski, O.—Diabetes Mellitus nach Pankreasextirpation. Arch. Exp. Path. u. Phar. 26, 1889-90, p. 371.
- (2) Allen, F. M.—Glycosuria and Diabetes.
- (3) Banting, F. G., and Best, C. H.—The Internal Secretion of the Pancreas. Jour. Lab. and Clin. Med. 7, 1922, p. 251. Pancreatic Extracts. Ibid, 8, 1922, p. 464.
- (4) Banting, F. G., Best, C. H., Collip, J. B., and MacLeod, J. J. R.—Preliminary Studies on the Physiological Effects of Insulin. Trans. of the Royal Soc. of Can. Series III, 1922, XVI.
- Banting, F. G., Best, C. H., and MacLeod, J. J. R.—The Internal Secretion of the Pancreas. Amer. Jour. Phys. 59, 1922, p. 479.
- MacLeod, J. J. R.—Pancreatic Extract and Diabetes. Can. Med. Assc. Jour. 12, 1922, p. 423.
- Banting, F. G., Best, C. H., Collip, J. B., MacLeod, J. J. R., and Noble, E. C.—The Effect of Pancreatic Extract (Insulin) on Normal Rabbits. Amer. Jour. Phys. 62, 1922, p. 162.
- (5) Banting, F. G., Best, C. H., Collip, J. B., Campbell, W. R., and Fletcher, A. A.—Pancreatic Extracts in the Treatment of Diabetes Mellitus. Can. Med. Assc. Jour. 12, 1922, p. 141.
- (6) Woodyatt, R. T.—Objects and Method of Diet Adjustment in Diabetes. Arch. Int. Med. 28, 1921, p. 125.
- Wilder, R. M.—Optimal Food Mixtures for Diabetic Patients. J. A. M. A., 78, 1922, p. 1878.
- Wilder, R. M., and Winter, M. D.—The Threshold of Ketogenesis. Jour. Biol. Chem. 52, 2, 1922.
- Ladd, W. S., and Palmer, W. W.—The Use of Fat in Diabetes Mellitus and the Carbohydrate-fat Ratio. Amer. Jour. Med. Sc. 166, 2, 1923, p. 157.

Strouse, S.—Balancing and Diabetic Diet. *J. A. M. A.*, 79, 1922, p. 1124.

Holmes, W. H.—Simplification of Woodyatt Method for Calculating the Optimal Diabetic Diet. *J. A. M. A.*, 78, 1922, p. 22.

McCann, W. S., Hannon, R. R., Perlzweig, W. A., and Tompkins, E. H.—Results of Treatment by Diet Adjustment with Reference to Maintenance Requirements and the Ketogenic-antiketogenic Balance. *Arch. Int. Med.* 32, 2, 1923, p. 226.

Problems in Antiketogenesis, Editorial, *J. A. M. A.*, 80, 1923, p. 256.

NEURALGIAS OF THE TRIGEMINAL NERVE.

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The trigeminal nerve is subject to two types of neuralgia. First, symptomatic pains; second, spasmodic pains or tic douloureux. The symptomatic pains are by far the most frequent. They may be supraorbital, infraorbital, supramaxillary, intramaxillary, dental and mixed form. The most common type is the supraorbital, and next, the mixed form.

The trigeminal or fifth cranial nerve is one of the most ~~extensively distributed~~ and most delicately sensitive nerves of the body. It supplies sensation to the face, conjunctiva, nose, frontal and maxillary sinuses, teeth, palate, tongue, and part of the upper pharynx; also to the scalp as far back as the vertex and to the external auditory meatus; gives sensation to three-quarters of the dura mater and probably the tentorium. In addition to the trigeminal supplying the above parts with sensation, it supplies them with trophic, vasomotor and secretory fibers.

The vasomotor fibers are brought to it from the medulla and cervical spinal cord via the sympathetic. The secretory fibers have the same origin. The trigeminal nerve likewise supplies motion to the muscles of mastication. The sensory part of this nerve is subject to sensory neurones, such as neuralgia, paresthesia and anesthesia.

Trigeminal neuralgia is closely related to dental practice and aside from its etiological diagnostic relation and treatment of the terminal reflex neuralgias which are directly connected with maxillary and dental lesions, the complex problem of trigeminal neuralgia is essentially one which concerns the oral surgeon.

REFERRED PAIN:—Pain may be produced by either a distant or local cause; for example, an exposed or irritated pulp may cause pain in its immediate region as the nerves supplying the dental pulp are the peripheral endings of the large trunk through which pain impulses are transmitted; or the pain may be located at a distant point, such as neuralgia in the ear, or occipital headache, due to the direct relationship of the surrounding parts. You should remember that the area of referred pain is not sensitive to pressure if the pain is actually referred, but if it is of local origin the tissue in the immediate region is painful on pressure. Referred pain can be caused by pressure, injury, trauma or irritation of a sensory nerve at a distant point. This stimulation is transmitted over certain sensory nerve branches to a remote part and there interpreted as pain. A common example of referred pain, which every dentist has no doubt experienced, is that a patient will complain of pain in a certain tooth, and upon examination it will be found to be perfectly healthy and free from caries or irritation and instead a large cavity will be found in the opposite jaw, the pain being referred by the connecting nerve branches. When the proper treatment was applied to the cavity the patient was relieved. Many times it is hard to convince the patient that the pain is not located in the tooth in which there was no pathology present.

Neuralgia is a condition characterized by pain in the course of a nerve trunk or trunks; therefore, it is not a distinct disease but only a symptom and the modern trend is to discard this term, except to indicate a nerve pain. Many pains formerly called neuralgia were really due to neuritis, reflex irritation or to some form of organic disease, although there is a certain percentage of persistent nerve pains for which no organic etiology can be discovered. Therefore, both as a matter of convenience and necessity, we will still cling to the term neuralgia. However, we attempt to classify it in accordance with its etiology and location.

There are a number of neuralgias, such as hysterical, gouty, neuritic, cervical, trigeminal, brachial, etc. Neuralgia is also spoken of as symptomatic or idiopathic, according to whether or not we know the etiology of the pain. The careful and observing physician or dentist has little or no use

per lateral wall of the nasal cavity, later appearing upon the face under the name of the external nasal nerve, which supplies the skin of the tip of the nose with sensation. The sensory fibers of the nasociliary nerves are enclosed within the first or ophthalmic division of the fifth nerve with the fibers of the frontal, supra-orbital and supratrochlear nerves which supply the supraorbital and frontal region. It is a well known fact that the pathology which involves the nasociliary nerves may produce neuralgia of the forehead and scalp region by the radiation of pain transmitted along the path of the frontal, supraorbital and supratrochlear nerves with which they are closely associated.

Another example of the referred pain is the neuralgia which manifests itself in the ear, caused by a carious tooth located in either the upper or lower jaw. This is due to the relation of the facial nerve to the fifth or trigeminal. The pain is produced in the ear through the tympanic branch, which passes through the tympanic membrane and is associated with the auriculotemporal nerve through which the third or mandibular communicates with the external auditory meatus.

A frontal headache may be caused by a carious tooth, infection of the antrum, pulp stones, alveolar abscess, and eye strain. To locate the etiology of referred pain, the operator must be a keen diagnostician and search for the direct cause by careful physical examination and by the process of elimination. Many nerve trunks have been blocked with alcohol to give the patient relief, the cause of the pain having been overlooked by the operator, while if located and the cause removed no deep nerve block would have been necessary.

There is no pain so severe and agonizing as that of trifacial neuralgia or tic douloureux. In mild cases the patient may suffer only intermittently, sometimes going for days, weeks or months without an attack, but without a moment's notice the patient may be seized with a severe attack. In the worst types of cases the pain may be agonizing and practically continuous and in most cases associated with spasmodic facial contractions.

The etiology and pathology of symptomatic neuralgia are more or less obscure, for in a great number of patients no lesion can be found of the

trigeminal nerve or Gasserian ganglion. In the symptomatic type of neuralgia the female sex is more often affected. Most cases are found in the first half of life and generally manifested during the spring or winter and the left side being more often involved. The superior maxillary and mandibular divisions of the trigeminus are more susceptible to the so-called rheumatic influences, while the first or ophthalmic branch is more susceptible to malaria or septic poisonings. There is no question but that alveolar abscesses, decayed teeth, sinus infection, pulp stones, abnormal roots, impacted or unerupted teeth, malformed teeth and necrosed bone have played an important role in producing the symptomatic type of neuralgia, predisposing to tic douloureux. Ocular, nasal, antral or frontal sinus disease may be the cause of neuralgia in the supraorbital nerve. Hysteria, malaria, epilepsy, syphilis, focal infection, trauma, neuritis, chronic tonsillitis and tumors may be the important factors in causing trigeminal pains. A carious tooth, alveolar abscess, tumors or empyema of the antrum are very often the cause of trifacial neuralgia of the second division; whereas an impacted lower third molar is very often the cause of mandibular neuralgia.

Etiology and Pathology of Tic Douloureux: Tic douloureux is a special form of trifacial neuralgia which occurs in middle life and is usually very severe in its symptoms. It should always be distinguished from the ordinary or symptomatic form of trifacial neuralgia. Tic douloureux is a special disorder, and in most cases is dependent upon changes in the nerve itself. The peripheral or extra-cranial reflex and the central or retro-ganglionic types of trigeminal neuralgias may be caused by some form of intracranial or cortical pathology, such as tumors, gumma, etc.

The various forms of psychoneuroses which so often attack the fifth cranial nerve are purely symptomatic and are only secondary manifestations of other pathological conditions. These conditions will in most cases yield to treatment other than that which is necessary to arrest or remove the primary pathology of the nerve trunk, which is recognized as tic douloureux. Tic douloureux is no doubt due to either a toxic or to an atrophic process which exists at some point in the various

nerve branches, Gasserian ganglion or brain. A low grade neuritis which may be caused by infection, such as alveolar abscess, empyema of the antrum, or impacted third molar with infection, as a rule does not show changes in the nerve branch, but the small arteries which supply the nerves are bound to undergo an endarteritis which causes their caliber to decrease and prevents the nerve from receiving its proper nourishment. In some cases the Gasserian ganglion has shown degenerative changes, but these have been considered purely secondary. In these cases the operation for the incision or removal of the nerve trunk itself eliminates the pain. Therefore, these degenerative changes have not as yet proved a causative factor of tic douloureux.

In some cases neurotic changes have been found, such as an increase in connective tissue or increased vascularity, but even the cause of this pathological change has not been determined, although it may be considered the result of former treatment, such as the injection of alcohol into the nerve branch which has produced the neurotic changes. There may be impingement upon the nerve trunk by an exostosis or tumor.

Within recent years it has been found that in some of the cases where the Gasserian ganglion has been removed, a definite bony protuberance situated on the superior aspect of the anterior surface of the apex of the petrous portion of the temporal bone and anterior to the Gasserian ganglion, extending into the substance of the Gasserian ganglion. Without doubt, this extension of bone is an exostosis and a possible causative factor in the production of the symptoms of tic douloureux. Those patients in whom the exostosis and the impinged ganglion were found, experienced pain in all three branches of the fifth nerve.

Syphilis, causing the formation of a gumma, extreme exposure, infection and other depressing influences are many times the etiological factors, together with pathological conditions existing in the orbit, empyema of the antrum, frontal sinus involvement are very often the cause of the symptomatic type of neuralgia.

The symptoms of tic douloureux are characterized by severe, agonizing, shooting pains, which, in most cases, begin in the region of the

nose, jaw, or upper and lower lips, and from this location radiate through the teeth into the orbital cavity, or even over the temple, brow and forehead. During a severe paroxysm, the patient's face is highly flushed, usually pinched and drawn. Increased lacrimation, running from the nose, spasmodic contraction of the facial muscles and tongue may occur, with the patient groaning and manifesting an expression of extreme agony. Often the patient experiences only a single attack lasting from one to several minutes. Returning attacks are, however, not unusual, and if this is the case, each additional one may be less intense than the one previous. The paroxysms in tic douloureux may be started by the patient in speaking, eating, moving of the tongue, the touch of the finger to the face, taking of liquids or food in the mouth, swallowing or taking of sweet or sour things, the slamming of a door, a draft of air, or the inhaling of cold air. In taking food or drink the paroxysm is more likely to be brought on if the substance taken is either sweet or sour, but the fact that the food or drink is either hot or cold is not a factor in bringing on the paroxysm; so the beginner need not confuse tic douloureux with pulpitis. A delicate touch, such as the weight of a fly will bring on a paroxysm more quickly than will a heavy pressure, such as the slap of the hand. In fact, the patient upon the approach of a paroxysm, will suddenly slap his hand heavily over the affected part and begin a vigorous massage, all the while smacking the lips and drawing the mouth toward the opposite side. The patient experiences more difficulty and pain during the fall and winter months and in some cases may entirely escape an attack during the summer months. The pains during the attacks are always located on one side of the face and in most cases are centered in one branch of the fifth cranial nerve, the second, or maxillary division, being more often involved, the next being the third, or mandibular division. However, the pain may not remain in the region of these two branches, but may spread to the whole side of the face. In addition to these symptoms, there are often associated with the pains spasmodic contractions of the facial muscles and tongue or the lower jaw presents quick movement. The patient may be awakened and spend many sleepless hours. There

may be in some cases, impairment of nutrition, as the patient may not eat for fear of starting another attack. Depression of spirits is present in many cases, for the pain the patient suffers is one of intense agony. The clinical picture in various individuals differs considerably. Some patients will not talk, eat or drink, and if they do they will attempt to confine the food to one side of the mouth, all of which is done in an attempt to ward off an attack. Some patients will not wash one side of their face or brush their teeth on one side for fear of causing a severe paroxysm of pain. In most cases the pain begins in one definite spot and radiates in various directions, involving only the side of the starting point. When the pain subsides, it usually returns in the same spot where it previously began and radiates in certain directions. Later on, several pain centers may develop and pain begin simultaneously in all of them, or may take turns radiating from one to the other. The pain may be situated over the nerve in which it first appears, later involving a number of branches. Patients who have suffered for years with this condition become somewhat accustomed to the painful attacks. However, they show great evidence of extreme pain during the paroxysm but learn to control their outcry.

In the diagnosis and treatment of patients supposed to be suffering from tic douloureux a thorough and careful examination should be made. First: One should ascertain the exact condition. Second: A Wassermann test should always be made in order to find or rule out syphilis. Third: One of the most important diagnostic aids in determining the etiology of this condition is roentgenograms of the teeth and osseous structures, antrum and sinuses, more particularly, the frontal sinus. The X-ray plate should be used to rule out the presence of pulp stones, abnormal roots, malformed teeth, unerupted or impacted teeth, supernumerary teeth, necrosed bone, and empyema of the antrum. In connection with the X-ray plate showing the frontal and maxillary sinuses, transillumination is of value. The time element is one of the strongest points in diagnosing tic douloureux, the more recent cases requiring careful study.

Treatment of trifacial neuralgia is of great importance to the medical and dental profession. Its treatment is of fourfold character and is as follows:

1. Medicinal or palliative.
2. Neurectomy and neurectasis.
3. Block anesthesia.
4. Removal of the Gasserian ganglion or its sensory root.

It is well to resort to medicinal or palliative treatment, for it will assist in verifying the diagnosis. If a positive Wassermann is obtained, then by all means rigid treatment for syphilis must be given. There is no specific drug treatment for the cure of facial neuralgia. Some drugs have been used with a variable degree of success. Nitroglycerin given in doses of 1/200 of a grain every two hours. Tonics containing such drugs as phosphorus, iron, arsenic, strychnin and quinine are also employed. It is always well to give the patient a thorough course of systematic treatment before resorting to surgery. Such treatment to include besides the drugs previously mentioned, diet, rest in bed, local applications of heat or cold and massage. By treating the patient in this manner no harm will be done, and if it fails, there is plenty of time to use other forms of treatment. In practice, at the present time, the treatment of the essential and confirmed disease of the trigeminus is limited to a choice of, first, alcoholization of the nerve trunks at their origin from the basal foramina; second, alcoholization of the Gasserian ganglion; third, gasserectomy or intracranial division of the sensory root of the fifth nerve as it enters the ganglion. The ideal treatment in all forms of neuralgia would be to obtain a cure of the neuralgia or pain without leaving behind a permanent anesthesia of the region tributary to the affected nerve, or causing secondary trophic lesions of a neuro-paralytic character such as follows in the anesthetized eye, after destruction of the ganglion either by alcohol or operation. The cure of the neuralgia without the trophic lesions, so much dreaded in the eye, which follows extirpation or alcoholization of the ganglion can be largely avoided by the proper selection of the surgical method of treatment adopted.

PROPAGANDA FOR REFORM

J. T. AINSLIE WALKER'S LATEST INTESTINAL DISINFECTANT.—About a year ago, a flood of reprints mailed from London reached the editors of the American medical journals and others. The reprint dealt with "A New Suggestion in the Treatment of Puerperal Eclampsia," by Captain J. T. Ainslie Walker. The reprint was to the effect that as "the problem of intestinal disinfection has been solved" rational treatment of the condition was greatly simplified, but it was not stated how the problem of intestinal disinfection had been solved. A few months later, the same editors received reprints which dealt with "Dimol" in the treatment of summer diarrhea in infants, and an article by A. N. M. Davidson. Still more recently, American medical editors have received a pamphlet mailed from England which purports to be a book sent for review. This pamphlet is an obvious puff for Dimol by J. T. Ainslie Walker. Dimol is a preparation introduced by J. T. Ainslie Walker of England, and is sold in this country by the Anglo-French Drug Co. Some time ago Mr. Walker was connected with the Barrett Manufacturing Co., to exploit "Pyxol," a proprietary disinfectant resembling compound solution of cresol. Later, Mr. Walker introduced his first "intestinal germicide" under the proprietary name "Trimethol." This preparation, which was reported on unfavorably by the Council on Pharmacy and Chemistry, appears to have been very similar to the product now exploited as Dimol. Mr. Walker would have us believe they are different, but the American agent of Dimol makes this claim: "Dimol is the registered name for the product known in the U. S. A. in 1914 under the name 'Trimethol'". (Jour. A. M. A., October 6, 1923, p. 1224.)

COLORLESS IODIN PREPARATIONS.—The so-called colorless iodine preparations do not contain iodine in the free state, but some form of combined iodine, chiefly iodide. For instance, *Tinctura Iodi Decolorata*, N. F., is a solution of sodium iodide and ammonium iodide obtained by mixing iodine and sodium thiosulphate, stronger ammonia water and alcohol. When tincture of iodine is used externally, it is with the view of obtaining the therapeutic action of free iodine. Since the colorless iodine preparations do not contain free iodine, their external use as a substitute for tincture of iodine is irrational. When tincture of iodine is given internally the free iodine contained in it is converted into iodide before absorption. There-

fore, tincture of iodine and the so-called colorless iodine preparations given internally have essentially the same therapeutic effect. However, if a colorless iodine preparation is to be administered, it would be simpler and more rational to administer sodium iodide. (Jour. A. M. A., October 20, 1923, p. 1383.)

MORE MISBRANDED NOSTRUMS.—The following products have been the subject of prosecution by the federal authorities charged with the enforcement of the Food and Drugs Act: Fisher's Uterine Tonic (Fisheropathic College Association), containing ammonia, traces of ammonium salts, including iodide and carbonate, vegetable extractives, glycerin and water. Fisher's Kidney Food (Fisheropathic College Association), containing a small quantity of vegetable extractives, citric acid, sugar, alcohol and water. San-Yak (Burnham Medical Co.), composed essentially of alcohol 7.0 per cent, plant extracts, including cinchona and a laxative drug, 2.4 per cent, and water 92.0 per cent. Plough's Prescription C-2223 (Plough Chemical Co., consisting essentially of potassium iodide, extracts of plant drugs, including colchicum, a trace of salicylic acid, glycerin, alcohol and anise flavoring. Chicawampa Tea (Chicawampa Tea Co.), consisting essentially of cut herbs, principally the *Ephedra nevadensis* (known locally as "Caynote" or "Canutlio") with small proportions of peppermint and sage. (Jour. A. M. A., October 20, 1923, p. 1380.)

VAN ESS.—The Van Ess Laboratories, Inc., Chicago, put out "Van Ess Special Dandruff Massage" and "Van Ess Liquid Scalp Massage." "Van Ess" is sold with the claims that it will make hair grow and that it will stop falling hair in two weeks. The A. M. A. Chemical Laboratory reports that Van Ess Special Dandruff Massage is a perfumed liquid which separates into two layers on standing. The upper layer consists essentially of a petroleum oil which appears to be kerosene. The lower layer appears to be composed of water and alcohol containing small amounts of quinine sulphate, coloring matter and perfume. The Laboratory concludes that it is probably that a mixture of 35 parts of kerosene, 15 parts of alcohol denatured by the addition of 2 grains of quinine sulphate per fluidounce and 50 parts of water would have whatever therapeutic properties the Van Ness Special Dandruff Massage possesses. (Jour. A. M. A., October 27, 1923, p. 1461.)

The Journal of the Florida Medical Association

Owned and published by the Florida Medical Association.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of Congress of October 3, 1917; authorized October 16, 1918.

Published monthly at St. Augustine and Jacksonville. Price \$3.00 per year; 30 cents per single number.

Contributions for publication in this journal, whether scientific papers or reports of County Secretaries, should be typewritten.

Address Journal of the Florida Medical Association, St. Augustine, Florida, or 201-202 St. James Building, Jacksonville, Fla.

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A WARNING.

The word **POISON** is printed here in 24-point size type. A label this size in red capital letters is required by our state law to appear on all containers of lye sold in Florida. Any person or copartnership or corporation violating this law is guilty of a misdemeanor and upon conviction shall be sentenced to pay a fine of not more than one hundred dollars and the costs of prosecution, or imprisonment of not more than 90 days.

A PERTINENT ARTICLE ON LYE PREPARATIONS.

*Clerf reports a series of twenty cases admitted during the sixteen months preceding the publication of his paper. The chief symptoms were water and food starvation from stenosis of the esophagus. Each patient had at some previous time ingested some form of lye preparation obtained from containers improperly labeled as to their poisonous contents.

The ages varied from 22 months to 58 years; the time that had elapsed between the ingestion of lye and the admission to the hospital ranged from 3 weeks to 37½ years; the symptoms on admission were more or less urgent in a majority of the cases.

Of the twenty cases reported 3 terminated fatally, and 14 were subjected to operation (gastrostomy) for the purpose of feeding. The routine treatment was dilation, by passing a bougie through the esophagoscope in the cases not subjected to operation, or by retrograde dilation in the cases operated on. Preliminary X-ray and esophagoscopy examinations were carefully made.

Beneath one of the illustrative cases is inserted a reproduction of the label that appeared on the lye container; it does not indicate the poisonous nature of the article.

Among the twenty cases are these:

CASE 8.—A boy, aged 5 years, was referred, March 27, 1922, by Dr. J. J. Reilly, because of inability to swallow solids and frequent regurgitation of liquids. About four weeks before admission, the child swallowed some liquid which produced severe burns of lips, mouth and throat.

*Clerf, Louis H.: Cicatricial Stenosis of the Esophagus Caused by Commercial Lye Preparations. (From the Bronchoscopic Clinic, Jefferson Hospital.) Jour. A. M. A., Vol. 80, No. 22, June 2, 1923.

The mother stated that there was some lye in the house, but is not certain whether this was swallowed by the patient. Difficulty in swallowing resulted and became slowly worse, so that only liquids could be swallowed. There was progressive weight loss. Roentgen-ray examination by Dr. W. F. Manges showed almost complete obstruction of the upper esophagus.

On esophagoscopy, a stenosis of the esophagus was found, ending in a blind fistula. Because of the emaciation and the continued failing of nutrition, gastronomy was advised. This was done by Dr. T. A. Shallow. The patient did not react well, and subsequently died. A necropsy was not permitted.

CASE 16.—A girl, aged 22 months, referred by Dr. C. Heard, Aug. 14, 1922, was unable to swallow anything but liquid foods, and these only in small quantities. There was moderate loss of weight and a mild degree of anemia. Nine weeks before admission, while playing in the yard, the child found a can of "Babbitt's Lye" and put some of it in her mouth. There were severe burns about the mouth and lips. Progressive dysphagia ensued. A gastrostomy was done by Dr. T. A.

Shallow because of aphagia. Roentgen-ray examination by Dr. M. A. Almy showed a partial stenosis of the esophagus. Esophagoscopy revealed a tight stricture about 4 cm. below the cricopharyngeus. Retrograde dilation is being carried out.

CASE 20.—A girl, aged 2 years, was sent to the clinic Nov. 4, 1922, by Dr. Charles H. Hunt, because of dysphagia for all but liquid foods. Four months before admission, she drank of a solution of "Kleanall," which had been left in a cup. Together with burns of the mouth there was dysphagia, which slowly increased, with marked loss of weight. About three months after the accident, the patient was unable to swallow even liquids; so a gastrostomy was performed immediately by Dr. Hunt. The general condition on admission was good. Roentgen-ray examination by Dr. W. F. Manges showed a marked obstruction of the upper esophagus. On esophagoscopy, marked narrowing of the esophageal lumen was found. Retrograde dilation is being done.

In conclusion the author comments in full on several pertinent features of the question as follows:



No Soaking Beware of Imitations No Rubbing

DIRECTIONS.

For washing white clothes, flannels and colored clothes of fast colors fill boiler one-half full of cold water; dissolve one third of an ordinary size bar of soap and put into it; add one teaspoonful of THE FLUID. Then put clothes in boiler and if they absorb sufficient water so that it does not cover them add more water. All the clothes should be submerged in water when boiler is placed on the stove. After water begins to boil allow it to boil 20 minutes, stirring clothes occasionally during the boiling process, then remove the clothes and rinse in two waters to take out all the soap. Examine the fabrics and they will be found clean and snow white, and ready to hang on the line to dry. In extreme cases, such as the neck and wrists of shirts it may sometimes be found necessary to rub these parts slightly between the hands, but for all ordinary articles no ammonia whatever is necessary, and no washboard is required. It will do no harm to put clothes in soak over night in clear water, but even this is unnecessary unless extremely soiled. THE FLUID is free from lime or acids and cannot possibly injure the finest fabrics. It makes the hands soft and smooth. For the second boiler of clothes use the same water without adding more FLUID or soap, but before putting the clothes into it dip them into cold water. Dry clothes should never be put into boiling water, as it is liable to set any stains which may be on them. For house cleaning, washing floors, greasy dishes, paint, etc., pour a small quantity in water, and add a little soap. For washing windows and glass, use no soap. Use strictly according to directions and THE FLUID will do the work perfectly and save much hard labor. THE FLUID is far superior to Ammonia and much cheaper.

CONTENTS OF THIS PACKAGE MAKES
TWO GALLONS OF WASHING FLUID

KLEANALL

Softens the water and has a most wonderful Cleansing and Bleaching Power, removes all Grease and Dirt and DOES NOT INJURE the finest fabric or the most Delicate Skin, if used according to directions.

PREPARED BY
KLEANALL MANUFACTURING COMPANY
HAVERHILL, MASS.
Net weight not less than 16 ounces

DIRECTIONS—Dissolve the contents of this package in two gallons of water, shake well until it is dissolved and then follow directions on the other side of label. Keep the Fluid in a stone jug or crock.

Form 65-22-11

This child swallowed a teaspoonful of Kleanall Lye, which had been left in a saucer. It was not known that this lye was poisonous, for nowhere on the label was there anything to show that it was a poison.

"In these cases, as in practically all cases of esophageal stenosis resulting from lye preparations, an analysis of the circumstances attending the ingestion of the alkali reveals several points of interest.

"The swallowing is practically always accidental, the lye, in powder or solution, being left within reach of the child, or put on the kitchen shelf with other containers and mistaken for one of these. Sometimes it is a residue adhering to a cup which has been used to measure lye. This apparent carelessness is due to a lack of knowledge of the highly poisonous nature of all lye preparations. Since lye may be purchased anywhere, and since the labels on the containers either have no poison or warning notice, or, if present, it is usually inconspicuous, it is readily seen that education as to the poisonous nature of lye is only by bitter experience.

"Viewing the matter purely in the abstract, it is difficult to understand why necessary legislation has not been provided to prevent these pathetic occurrences by adequate 'scare labels,' especially when, on every hand, efforts are being made to protect against disease, to safeguard against injury, and to prolong life.

"Poisoning, due to the accidental swallowing of poison sold by druggists, is relatively uncommon, and this is due in great part to the profound respect inspired by the 'skull and cross bones' and 'poison scare labels' which are required by legal regulations to be placed on these containers."

"Similar precaution could be taken with lye preparations to warn the public of the highly poisonous nature of these substances. It would then be very properly stored in a safe place beyond the reach of these poor, innocent children. A careful presentation of this question to legislators and manufacturers from the humane side, as well as a consideration of its economic aspects, should convince them of the necessity of remedial measures.

"This is a review of a pathetic condition which is the cause of much suffering and distress to these innocent patients, who are in this state because it was not known that lye was a poison. That this disease is preventable is obvious. The essential point is that parents do not fully realize that these preparations are poisons."

OUR JOURNAL.

The officers of the Florida Medical Association and the staff of *THE JOURNAL* are bending every effort to make the official organ one that is really of value to every reader and a credit to our association. Much time, careful thought and effort is entailed in the production of a scientific periodical.

The backbone of any medical publication is the quality and quantity of original articles published therein. Each year the essays presented at our annual meeting are printed in *THE JOURNAL*. However, these alone will not suffice to fill its pages. The editors, unassisted, cannot produce a satisfactory periodical, for we are dependent on the members of our association to furnish us with original articles.

Each member of the association should consider himself an integral part of *THE JOURNAL* staff and endeavor to assist in making our publication worthwhile. In the past this has not been done, but the responsibility of the production of *THE JOURNAL* has been forced into the hands of one or two men.

The staffs of the accredited hospitals of the state have been asked to forward such papers as may be read at their monthly meetings. Up to the present, only feeble response has been made.

The success of *THE JOURNAL* rests in the hands of each member of the association, and it behooves you to assist in its publication either by the writing of an original article or the stimulating of some other member to contribute. *THE JOURNAL* is yours and the success of it is dependent on your efforts.

WHAT AMERICAN MEDICAL AID IS DOING IN RUSSIA.

PLANS FOR WORK OF COMING YEAR.

Plans for the coming year's medical work of the Friends' Relief Mission in Russia have recently been completed. This work is supported by the American Friends' Service Committee, 20 South Twelfth street, Philadelphia, through its medical section: American Medical Aid for Russia. Local and state branches of the latter have been organized by medical leaders in many parts of the United States.

The new plans for the work on the field were drawn up by Dr. Elfie Graff, head of the Mission's Medical Department, in conjunction with the medical authorities in Moscow. They follow

the lines on which the government itself would work if it had resources to carry out intensive programs of this kind.

Dr. Graff feels that all the plans of the Narcomzdrav (Commissariat of Public Health) are thoroughgoing and up-to-date, that they have as comprehensive an understanding of the needs and necessary remedies as can be found in any country in the world, and that they are superior to most other countries in the extent to which the government is taking cognizance of the work, especially that in connection with the care of mothers and babies.

The first division of the medical program of the mission, and one that can be carried out at once, is assistance to hospitals, already existing, in equipment and repair, in supplying sheets and blankets, medicines, etc. The Friends have until this time given a certain amount of help to hospitals in feeding them, and furnishing clothing, but it has been very inadequate. Most of the hospitals in the district have had only a negligible amount of medicines, and almost none of the most simple kind of equipment, such as thermometers, hot-water bags, and other necessary things.

The second point is the continuing and enlarging of the present antimalaria work. At the present time there are two clinics, one in Sorochinskoye and one in Buzuluk, each of which has up to the present time received over 7,000 persons for blood tests and quinine treatment, and each of which is taking in new patients at the rate of 100 a day. The only limitation to this work has been the lack of quinine, but the new program provides for enough quinine to continue these clinics and open new clinics in the outlying districts so that the people who have no horses to take them to get treatment somewhere else may have a clinic in their own or a nearby town. In connection with this work, an engineer is to be secured through the government and plans will be made to drain the stagnant water that lies around most of the villages, where the malarial mosquitoes breed. A general agitation for sanitation will be carried on, lectures will be given on mosquitoes and malaria, and posters will be sent out by the Department of Health.

The third point is the Child Welfare work. As a first step in this comes the government's program of reducing the number of children in Children's Homes to an absolute minimum, so that as much energy as possible may be concen-

trated on keeping the general population in health. To help accomplish this it is proposed to open day-nurseries in the villages in the summer time so that there may be some care for the very young children while their mothers are working in the fields and gardens. The latter are usually far away from the house, so that many of the peasant children are neglected all through the day. It is also proposed to open children's consultations and pre-natal clinics so that there may be special medical care for children outside of institutions, and advice and help given to nursing and expectant mothers. Wherever necessary, it is proposed to give special food relief to widows without resources and with more than one child. Increased medical inspection in institutions and schools will also be necessary. For this additional Russian physicians will have to be brought in by the mission or local doctors paid or rationed, if available for the work, as the local authorities are too poor to stand any additional burdens. In addition to aiding any institutions already existing to the limit of the mission's capacity, it is proposed to open additional institutions for delicate and defective children, such as summer homes for vacation purposes, institutions for tuberculosis, orthopedic, and mental defectives.

And finally—in preventive and educational work among the children—it is suggested that there be a general nutrition campaign in all closed institutions, or wherever full diet is possible; that posters, cards, songs, verses, etc., be used, and that the children themselves be employed in a general health campaign such as "Clean-up Week," "Antimalarial Work," "Swat the Fly," contests, etc.

The final point in the program is assistance in the struggle against venereal diseases. It is not known at the present time just how much can be done along this line, but the government made a special appeal for help in this connection because of the alarming spread of venereal disease since 1914, and the inadequate means of dealing with it. The situation of a huge army camp in Buzuluk makes this problem particularly grave in the district, where the Friends are working.

This, in outline, is the plan submitted for the future medical work of the Friends, with the full approval of the Health Department of the government. Dr. Graff received a great deal of help in Moscow from the medical authorities, particularly from Dr. Lebedeva, who is in charge of the Mothers and Babies' Division, and who is

working herself to death in her efforts to put into effect some of the splendid plans of her department for the protection of the coming generation. Through Dr. Lebedeva, Dr. Graff was able to visit various institutions in Moscow, and was greatly impressed by the things they have been able to accomplish in spite of a pitiable lack of material resources. But in Moscow they have devoted people who work night and day to carry out the program. The main difficulty is in the provinces where they lack not only material equipment but trained personnel, and where it is often difficult to secure the cooperation of ignorant local officials on whom the support of the work depends.

The Friends workers have had ample opportunity to observe how crippled the local health department is, during their year and a half of famine relief work in Buzuluk and Pugachev counties, and they know too well that it would be a long time before there could be even a beginning of such a program as suggested if the local people had to carry it on themselves. The central government is too poor to carry more than 2 per cent of the needs in the provinces. The local Department of Health has practically no funds at its disposal, and the local peasants are already so burdened with taxes that it is impossible to expect much from the general community. So the lives and health of the people in Buzuluk and Pugachev, suffering from malaria, from under-nourishment, and most of all from ignorance of the most ordinary way of taking care of themselves, depend on the mission's ability to bring in enough material aid and trained workers to help carry out the program that the government would like to accomplish itself, but for which it has no means.

SURVEY OF EYESIGHT CONDITIONS.

A nationwide survey of eyesight conditions in American education and industry has been undertaken by the Eyesight Conservation Council of America, it is announced at the national headquarters of the Council in New York.

As to industry, the aim of the survey, according to Guy A. Henry, General Director of the Council, is to disclose the relation between defective vision and the efficiency of the nation's millions of workers. As to education, it is proposed to ascertain what steps have been taken by

the schools to measure the extent of poor eyesight and to make effective preventive provision.

The Eyesight Conservation Council's survey, marking the start of the research program recently adopted by the Board of Directors, has set out to reveal the effect of incorrect vision upon production. It has prepared a questionnaire designed to show increase in individual performance, decrease in accidents, increase in production and decrease in spoilage. The extent of color blindness, the number of blind in one eye, the number totally blinded, hours lost due to eye accidents, equivalent wages for lost time, use of goggles, cost of eye protection service, and total number of eye injuries are other objectives.

This questionnaire has been sent out to the industrial and commercial establishments located in the principal cities of the country.

The Council will also endeavor to show "to what extent is any effort being made to place in suitable jobs those workers who have been permanently or temporarily disabled because of eye injuries," and whether any attempt is being made to carry out the National Safety Code for the Protection of the Head and Eyes of Industrial Workers as prepared by the United States Bureau of Standards.

In the school survey, the Council is trying to reveal what provisions are being made to eliminate glare from unshaded light sources, windows, polished surfaces, blackboards, etc. One of the most important questions to which the Council seeks to provide a satisfactory answer is the relationship of defective vision to retardation. The Council's school survey extends to practically the entire Union. A questionnaire has been prepared and sent to schools and colleges generally.

Previous investigation, it is stated, has revealed alarming conditions of vision which must be remedied if national physical deterioration is to be avoided. The Hoover Committee on Elimination of Waste in Industry of the Federated American Engineering Societies found that industrial waste was due in considerable measure to faulty vision. It is estimated that 25,000,000 gainfully employed Americans are thus afflicted. The Eyesight Conservation Council is conducting a national movement for the conservation of vision in the schools.

Statistics covering many years show that nine out of every ten persons over twenty-one usually

have imperfect sight. At thirty-one the proportion is larger. Above forty it is almost impossible to find a man or woman with perfect sight. It was learned by the examination of several thousand school children in one of our large cities that sixty-six per cent of them had defective vision.

Proper lighting of schools, it is said, will go far toward eliminating these evils. Glare, according to Prof. F. C. Caldwell of the Department of Electrical Engineering, Ohio State University, and a member of the Board of Directors of the Eyesight Conservation Council, is a prolific source of poor eyesight. Commissioner of Education John J. Tigert says that retardation of pupils is probably due in some degree to unfavorable vision.

The Eyesight Conservation Council is one of the organizations represented on the Sectional Committee which is to prepare a lighting code for the nation's schools. The code is being framed under the auspices of the American Engineering Standards Committee, with the American Institute of Architects and the Illuminating Engineering Society as joint sponsors.

EMPIRICISM AND SCIENCE IN MEDICINE.

Progress in medicine during recent years has been due in large measure to the efforts of two somewhat distinct groups of workers. One of these includes the clinicians, whose primary interest centers in the care and treatment of the sick. The other group is represented by the so-called laboratory workers—persons engaged in the study of the disciplines fundamental to medicine and sometimes inaptly termed preclinical sciences. In his address as chairman of the Section on Pathology and Physiology at the San Francisco session, Luckhardt⁴ lamented the fact that the efforts of these two groups have rarely been concerned. No one can review the history of modern medicine without gaining the conviction that both types of workers have promoted its practice; and it requires no large perspicacity to discern that all of them are important in the advancement of the profession. Hence it was a timely note sounded by Luckhardt when he insisted that the mutual misunderstanding, so prevalent among even the best representatives of both groups, is due to profound ignorance of each

other's work. As a rule, he says, the laboratory man has never had an occasion to observe with what care and scientific acumen the good clinician gathers and weighs his data before instituting a rational and effective therapy. The clinician, on the other hand, rarely is in a position to observe and appreciate the resource, patience and pertinacity required of the laboratory man in order to solve a research problem the results of which are subsequently so readily susceptible of practical application.

An illustration of the effect of this reciprocal derogatory attitude appears in the history of cod liver oil as a remedy, recently reviewed by Guy,⁵ of Yale University School of Medicine. She points out that Rosenstern wrote in 1910: "Cod liver oil is in the forefront of children's remedies. For long it has been struggling against the skepticism of exact science." This comment deserves to be driven home to those who tend to develop that most reactionary it-can't-be-done attitude. Guy reminds us that in each country the experience was the same: Cod liver oil was used by the fishing people and peasantry; and then accidentally observed by some physician, tried by him, and so made known generally to the profession. At first, it was used in chronic rheumatism and gout; then, naturally enough, in other bone and joint diseases, notably rickets and osteomalacia (which was considered closely allied to gout); then in scrofula, because of its supposed identity with rickets, and finally in other forms of tuberculosis.

Today, even though we cannot "explain" the action of cod liver oil, its beneficial action in various conditions has been placed on a rational basis. The "healing potency" can be demonstrated by measurable changes under controlled conditions. The results of carefully planned experiments on laboratory animals have been brought to bear on clinical experience, so that one is justified in concluding with Park, Guy and Powers⁶ of Yale that, in the presence of calcium or phosphorus starvation, cod liver oil enables the animal to get along as if the calcium or phosphorus were supplied in sufficient or almost sufficient quantity in the diet. Obviously, they say, cod liver oil makes the metabolic processes of the body in respect to these two elements vastly more efficient, even though it does not supply them.

The clinician's observation, long unsupported and even disparaged by the worker in the chemical laboratory, has thus, "come into its own."

Mental aloofness and a hypercritical attitude have become obliterated in the common belief in established facts. Let us, however, not on that account overexalt empiric methods or undervalue a rigorously critical attitude. The latter has more than once saved us from quackery and charlatan-ism, from painful error or dangerous overcon-fidence. The cults always delight to stress the historic incidents of the failures of the scientist to grasp a truth that was subsequently pro-claimed far and wide. But even the rankest em-piricist is quick to discover a palpable fraud. Met-allic tractors, electric belts and even subtle elec-tronic currents are schemes of deception which do not require scientific training and clinical in-sight, but merely common honesty for their un-doing.—*Jour. A. M. A.*

4. Luckhardt, A. B.: *The Progress of Medicine*, J. A. M. A. 81:347 (Aug. 4) 1923.

5. Guy, Ruth A.: *The History of Cod Liver Oil as a Remedy*, Am. J. Dis. Child. 26:112 (Aug.) 1923.

6. Park E. A.; Guy, Ruth A., and Powers, G. F.: *A Proof of the Regulatory Influence of Cod Liver Oil on Calcium and Phosphorus Metabolism*, Am. J. Dis. Child. 26: 103 (Aug.) 1923.

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SAL-ETHYL.—A brand of ethyl salicylate—N. N. R. For a discussion of the actions, uses and dosage of ethyl salicylate, see *New and Non-official Remedies*, 1923, p. 272. Sal-Ethyl is sup-plied in the form of Sal-Ethyl Capsules, 5 min-ims. Park, Davis & Co., Detroit. (*Jour. A. M. A.*, October 13, 1923, p. 1285.)

ANTIDYSENTERIC SERUM—P. D. & Co.—An an-tidysenteric serum (see *New and Nonofficial Remedies*, 1923, p. 287) obtained from horses immunized against several strains of Shiga and Flexner types of dysentary bacilli. It is marketed in packages of one syringe containing 10 c.c.; in packages of one vial containing 10 c.c.; in pack-ages of one vial containing 20 c.c. Parke, Davis & Co., Detroit. (*Jour. A. M. A.*, October 20, 1923, p. 1363.)

CHEPLIN'S B. ACIDOPHILUS MILK.—A milk culture of bacillus acidophilus, containing not less than fifty million of viable B. acidophilus per c.c. at the time of sale. For a discussion of the actions and uses of bacillus acidophilus milk, see *Lactic Acid-Producing Organisms and Preparations* (*Jour. A. M. A.*, September 8, 1923, p. 831). For adults the dose is from 500 c.c. to 1,000 c.c. Chep-lin's B. Acidophilus Milk is marketed in bottles containing respectively 200 c.c. and 400 c.c. Chep-lin Biological Laboratories, Inc., Syracuse, N. Y.

DIPHThERIA ANTITOXIN STANDARD (Purified and Concentrated Globulin).—Formerly mar-keted as diphtheria antitoxin concentrated (glo-bulin). (See *New and Nonofficial Remedies*, 1923, p. 283.) This brand of diphtheria antitoxin concentrated is also marketed in packages of one syringe containing 20,000 units. H. K. Mulford Company, Philadelphia.

PROTEIN EXTRACTS DIAGNOSTIC-P. D. & Co.—In addition to the Protein Extracts Diagnostic-P. D. & Co., listed in *The Journal*, September 15, 1923, p. 929, the following have been accepted: Colon Bacillus Protein Extract Diagnostic-P. D. & Co.; Gonococcus Protein Extract Diagnostic-P. D. & Co.; Micrococcus Catarrhalis Protein Extract Diagnostic-P. D. & Co.; Pneumococcus, Type 1, Protein Extract Diagnostic-P. D. & Co.; Pneumococcus, Type 11, Protein Extract Diagnostic-P. D. & Co.; Pneumococcus, Type 111, Protein Extract Diagnostic-P. D. & Co.; Pseudodiphtheria Bacillus Protein Extract Diagnostic-P. D. & Co.; Staphylococcus Albus Protein Extract Diagnostic-P. D. & Co.; Staphylococcus Aureus Protein Extract Diagnostic-P. D. & Co.; Staphylococcus Citreus Protein Extract Diagnostic-P. D. & Co.; Typhoid Bacillus Protein Extract Diagnostic-P. D. & Co. Parke, Davis & Co., Detroit.

DIPHTHERIA TOXIN-ANTITOXIN MIXTURE (0.1 L+)-Lederle. This product (see New and Nonofficial Remedies, 1923, p. 284) is also marketed in 30 c.c. vials. Lederle Antitoxin Laboratories, New York. (Jour. A. M. A., October 27, 1923, p. 1441.)

“From various doctors in counties visited in September the information was volunteered that following the visits of the nurses last fall many prospective mothers went to the physicians for prenatal care and arrangement for care at delivery, who had never employed a physician before. In one case, where an acute kidney complication was found by the nurse, the patient immediately placed herself under a physician's care. We also continue to receive reports from the clinics held during the summer or corrective work that is being done by physicians from the examinations made at that time.” (*Excerpt from Departmental Report, Florida State Board of Health.*)

PUBLISHER'S NOTES

THE NEW COMPETITION.

Many progressive manufacturers and merchants say that the cut-price bait is losing its attraction. They are paying less attention to this method of getting more business, and more attention to the idea of quality merchandise

service. They believe the results so far achieved justify the statement that their customers will be better served and their own profits enhanced by giving more attention to quality, and less to price.

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THE RELIABILITY OF ERGOT PREPARATIONS.

A variety of methods for assaying ergot have been employed in the past, some of them chemical, some physiological. The drug contains two or three active therapeutic principles, besides some which were at one time considered important but are now generally discredited. Among the latter the most conspicuous example is ergotinic or sclerotic acid.

Chemical assays of ergot, stoutly defended for a time as being more accurate than physiological methods, have been largely superseded by the latter, for it is now admitted that the darkening effect of a standard specimen upon the comb of the white Leghorn cock is not only a practical gauge of therapeutic value, but as accurate as any chemical test thus far devised. The cock's comb method was applied originally, on a commercial scale, by Parke, Davis & Co., whose advertisement in this issue of *THE JOURNAL* on the standardization of Ergot is one of a series directing professional attention to the progress of the standardization principle along physiologic lines.



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THE JOURNAL

— OF THE —

Florida Medical Association

OWNED AND PUBLISHED BY THE FLORIDA MEDICAL ASSOCIATION

VOLUME X
No. 6

St. Augustine and Jacksonville, Fla., December, 1923

Yearly Subscription, \$3.00
Single Copy, 30c

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THE JOURNAL OF THE FLORIDA MEDICAL ASSOCIATION

PUBLISHED MONTHLY

Volume X

St. Augustine and Jacksonville, Florida, December, 1923

Number 6

ORIGINAL ARTICLES

ENDARTERITIS OBLITERANS: ETIOLOGY, SYMPTOMATOLOGY AND SURGICAL TREATMENT.*

FREDERICK J. WAAS, M. D., F. A. C. S.,
Jacksonville, Fla.

The term "Endarteritis Obliterans" was first used by Von Winuvarter when, in 1879, he reported a case of obliteration of practically all the arteries of the leg, due to a chronic process, which the pathologic findings showed had resulted from a proliferation of the cellular and fibrous tissue elements in the intima of the artery.

ETIOLOGY AND PATHOLOGY.

The conditions studied by Von Winuvarter has since been frequently observed and described, but its exact etiology has always been somewhat in doubt. Most observers have attributed it to syphilis and considered that it was likely to be found in patients with a history of the excessive use of alcohol and tobacco. In discussions of erythromelalgia and of Raynaud's disease the phenomenon has been frequently included, either as an accompanying pathologic condition, or as a causative factor.

As eminent a surgeon as Charles F. Painter, writing under the title of *Obliterating Endarteritis* in 1908, discussed his subject under five heads: (1) Erythromelalgia; (2) Angina cruris or intermittent limping; (3) Raynaud's disease; (4) Mowan's disease, and (5) Arteriosclerosis, senile gangrene and syphilis. All five groups have, he pointed out, certain characteristics in common. "At different periods of life, and in a totally different manner, the peripheral circulation of the extremities may be either continuously or intermittently interfered with to such a degree as to cause symptoms varying all the way from a slight blanching or blushing of the toes or the fingers, accompanied by subjective sensations of heat or cold, to a condition of gangrene in which

the phalanges, one after another, fall off. The cause of the symptoms which are presented by patients suffering from this variously named condition is doubtless not one common to them all, but seems beyond reasonable doubt to be at least intermittently related to each of them. The one feature which they seem to possess in common is the evidence of a narrowing of the lumen of the peripheral vessels."

But at almost the same time in which Painter wrote, Leo Buerger presented to the Association of American Physicians, an exhaustive "Study of the Vascular Lesions Leading to Presenile Spontaneous Gangrene," which he announced were due to "a thrombotic process in the arteries and veins followed by organization and canalization, and not to be obliterating endarteritis." At the same meeting Bernard Sachs drew attention of the Association of intermittent claudication (angina cruris) with symptoms of the Raynaud type, recalling that a number of years earlier he had stated that "Intermittent claudication may be contrasted with erythromelalgia (motor paralytic symptoms with sensory and vasomotor disturbances, both due to peripheral nerve disease following upon obliteration endarteritis)", adding that "If Dr. Buerger's views are correct, we shall have to substitute "thromboangitis" for "obliteration endarteritis."

Much has been said since and written concerning the thromboangitis of Buerger, frequently termed *Buerger's Disease*, and although the particular syndrome to which the name has been applied is really a special manifestation of endarteritis, the nomenclature is not exactly applied, as is evident from a remark made by Frauenthal at his clinic in the New York Hospital for Deformities and Joint Diseases, who said, not long ago, that he had for many years paid especial attention to "obliteration endarteritis," or as Buerger calls it, "thromboangitis obliterans."

A consideration of endarteritis obliterans, then, must include Buerger's disease, as well as those cases of erythromelalgia and Raynaud's

*Read before the fiftieth annual meeting of the Florida Medical Association held at Jacksonville, May 15, 16, 1923.

disease, which progresses to the gangrenous stage, thus indicating that collapse and closure of the smaller arterial branches has taken place.

It is remarked by Max Strunskt that "endarteritis obliterans is conspicuous by the frequency with which it is overlooked in the routine examination of the arteries in every case of 'foot troubles,' especially in the male—make possible the early detection of the condition," though it is the observation of this author that "a disturbance in the pulses of the foot is not at all a sign of an early stage of the disease as was formerly supposed, but rather a sign of a late stage. By the time the physical change in the artery can be detected, the disease has already made terrific inroads.

"In order to cause the cessation or even the disturbance of a pulse, the pathologic condition must be gross and the disease must have advanced to the point at which there is occlusion either of the entire lumen or at least of the major part of the lumen of the artery; for endarteritis obliterans means not a thrombus formed suddenly but rather a gradual proliferation of the endothelial coat. The disease not only manifests itself by a local lesion in the arteries and veins, but also has a central lesion in the nervous system. The central lesion expresses itself through the vasomotor nerves causing a disturbance in the vasomotor balance. The function of the vasomotor nerves is to keep the coats of the vessels in tension, so that a normal volume of blood is retained in the lumen of the blood-vessels. In endarteritis obliterans the vasomotor balance is disturbed. In later stages when the arteries have already become occluded, the vasomotor mechanism is so unbalanced as to paralyze the coats of the blood-vessel.

SYMPTOMS.

"Evidences of vasomotor disturbances come on early in this disease, and with good light, good eyesight and careful examination, this sign can be brought out as one of the earliest manifestations. In comparison with the healthy and normal foot, we can detect a slight pallor of the skin when the limb hangs down. This sign is one of the earliest manifestations of the disease, sometimes appearing years before the pathologic condition in the arteries has progressed to such an extent as to make the interference become appreciable to the examining finger."

The disease occurs most frequently in male Russian Jews, and the majority of the reports

upon it in this country have emanated from clinics in New York which serve that city's large Jewish population. Buerger has usually found it occurring in young adults between the ages of twenty and thirty-five or forty years. Upon examination, one or both feet are markedly blanched, almost cadaveric in appearance, cold to the touch, and no pulsations can be observed in either the dorsalis pedis or the posterior tibial artery. When the foot becomes warm, some color gradually returns. "Some patients complain of rheumatic pains in the leg, others are able to walk but a short distance before the advent of paroxysmal shooting, cramp-like pains in the calf of the leg makes it imperative for them to stop short in their walk. Some of these cases give the typical symptoms of intermittent claudication. After months, or in some cases even years, trophic disturbances make their appearance, giving the foot the appearance typical of erythromelalgia. In the pendant position, a bright-red blush of the toes in the anterior part of the foot comes on rather rapidly, extending in some cases to the ankle or slightly above. Soon a blister, hemorrhagic bleb, or an ulcer develops near the tip of one of the toes, usually on the big toe, frequently under the nail, and when this condition ensues the local pain becomes intense." Such trophic disturbances may at all times make little progress; again the adjacent skin may show cyanosis and dry gangrene of the entire toe quickly follow. Sometimes the pain is so intense as to make amputation necessary even before the gangrene process is established.

As the incipient lesion is an inflammatory one, involving the arterial and venous walls, the result, according to Buerger, will naturally be an occlusive thrombosis, gradually giving way to organization and canalization, and finally resulting in a healed product in which the vessel becomes converted into a cord, more or less adherent to its surroundings, in which even the neighboring nerves may become agglutinated and enveloped in fibrotic vascular cord. Thus the syndrome, called by this author thrombo-angitis obliterans, is the result of "the diastrophic occlusive thrombosis which signalizes Nature's method of healing a vascular lesion, that has long since disappeared." Buerger's reason for demanding "that the name endarteritis obliterans as applied to thrombo-angitis should be discarded" is because the "occlusive lesion is a thrombotic one, affecting arteries as well as veins

of the extremities and . . . independent of atherosclerosis or arteriosclerosis."

In Buerger's experience in most cases when the patient comes under observation "the larger arteries, and often the larger veins, are completely obliterated. As a rule the plantar vessels, dorsalis pedis and many of its branches, anterior tibial, posterior tibial, peroneal and sometimes the popliteal, are already completely closed, although any one or more of these vessels may escape. . . . The obturating tissue is for the most part representative or indicative of a healed lesion, or the end stage of a process whose incipency is marked by an acute inflammation of the vessel wall, with consecutive, red occlusive thrombosis of the affected vessel."

Study of legs amputated for gangrene of the extremity shows and extensive obliteration of the arteries and veins. The appearance of the vessels on cross-section depends upon the stage of occluding process. Usually the vessel is seen to be filled with a grayish or yellowish mass that can be distinctly differentiated from the annular wall of the vessels, firm in consistency and not at all resembling the crescentic or semilunar occluding masses typical of arteriosclerosis. The vessel itself is usually contracted, so that its wall appear somewhat thickened. This picture is characteristic of arteries and veins, which are the seat of a very old obliterating process, and is to be found most frequently in the peripheral portions of the vessels, although at times this type of lesion may extend throughout the whole length of the vessel from the dorsal halluces into the popliteal.

That syphilis may be the causative factor in endarteritis obliterans is still maintained by Ravogli, of Cincinnati, who recently reported a case which he deemed of syphilitic origin. The patient was a woman (all Buerger's patients were men), 63 years old, in whom the blood Wassermann was negative, but who had several miscarriages and a son who was tabetic. Examination of the tibial artery, after amputation of the right foot, showed that the intima was entirely deformed with a tumor formed by small infiltrating cells in the middle of the lumen, where the blood had begun to coagulate. The artery below the thrombus was greatly deformed, the lumen being oblong with signs of canalization "resulting from the efforts of Nature to force the blood through." Ravogli believes that "the rough edges of the broken intima act as factors

causing the albumin and fibrin to coagulate and so to obstruct the lumen of the blood vessel. The whole process resembles a specific guma which has broken the endothelium of the intima, and so has produced the thrombus." He regards this as a wholly different condition from Buerger's disease, which he characterizes as a progressive one, increasing in gravity and showing more hydraulic alterations with redness, swelling, edema and plugged veins. It usually affects young persons and apparently the immoderate use of tobacco is a factor, "the affection of the blood and the pressure of the blood-vessels finally causing the formation of thrombus and gangrene."

A number of years ago Turnbull, of the London Hospital's Pathological Institute, stated that "there is evidence that spirochaetes may invade the aorta from the intimal surface," but he had never seen a syphilitic inflammation which was confined to the intima of a large elastic artery. An endarteritis which is unaccompanied by an inflammation of the other coats may occur in the small arteries, however, and "is not uncommon in tuberculosis, particularly of the small pulmonary arteries, but is rare in syphilis. . . . Syphilis and tuberculosis, however, usually cause a more chronic arteritis in which changes in the intima are very conspicuous and produce almost complete occlusion of the lumen. The condition is, therefore, frequently referred to as 'endarteritis obliterans.'"

TREATMENT.

Whatever the etiology of the affection may be, the question of treatment of such an exceedingly grave condition is one of acute interest to all who have come in contact with it. The first efforts are naturally directed toward increasing the circulation in the affected extremity, but usually before the patient has come under observation the disease has already progressed so far that gangrene is imminent, or actual "death" of the toes has occurred, and any surgical measures undertaken thereafter can at best only be only regarded as palliative. Ginsburg, in reviewing the subject, tells us that "a considerable amount of experimental laboratory work, performed abroad and in this country, for the purpose of establishing the value of arteriovenous anastomosis in the treatment of this disease, has proved rather conclusively that true reversal of the circulation in the affected limb cannot be accomplished, even though Carrel and Guthrie success-

fully established in their laboratory experiments the possibility of conducting arterial blood to the peripheral capillaries by way of veins. Arterio-venous anastomosis, femoral vein ligation section of the sympathetic fibres about the femoral vessels, multiple ligations of the superficial varicose veins in the affected limb (Lilienthal), high amputation and intravenous saline injections have been proposed and performed by observers all over the world in their efforts to combat circulatory failure in the affected limbs. In addition to these measures, every conceivable form of local treatment to stay the impending or spreading gangrene has been employed with almost uniform failure in the final results obtained.

A similar conclusion in regard to the value of an attempt to rouse the circulation so as to ward off, or stop the progress of gangrene, was reached by Miller, of Philadelphia, in 1910, and reiterated by him in a discussion of Ginsburg's paper. "In the early stages of arterial disease producing ulcers on the toes, erythromelia, extreme pain, tingling, etc., a complete reversal of the circulation *may* relieve the condition if other measures have been tried and have failed. With gangrene of a toe established, one should wait for a line of demarcation. If the process involves several toes or tends to spread to the dorsum of the foot, an anastomosis between the femoral artery and vein with ligation of the external saphenous will *almost certainly* induce a line of demarcation in the region of the ankle. If the superficial and deep veins are also thrombosed, the operation is useless, and should not be done."

Similarly, Stetten, five years later, after a series of investigations and experiments concluded that the arterial circulation to the periphery, even in very advanced arterial diseases, is in every respect better and easier than the retrograde venous circulation; that even if the anastomosis functionates, as it rarely does, there is no possibility of circulatory improvement, but quite the reverse; that the few so-called successful results have probably been obtained more in spite of than because of the operation; and that the operation is dangerous and the results have been most unsatisfactory except in a very small percentage of cases. Of the 136 cases studied by Stetten, thirty deaths occurred immediately or shortly following the operation after an amputation, a mortality of more than 30 per cent. "Furthermore," he remarks, "of the patients who did not die, forty-five later required amputation."

Ligation of the femoral vein has been tried by a number of surgeons but no brilliant successes seem to have been reported. Kogo and Mayesima, of Japan, used 2 per cent intravenous injections of sodium citrate, or Ringer's solution, with a view to decreasing the viscosity of the blood, and their method has since been employed here in conjunction with femoral-vein ligation. Ginsburg had some favorable results from this procedure, but on the whole the reports generally are not encouraging.

"When one witnesses the exruciating pain these patients suffer, with the attendant loss of sleep, often uncontrolled by sedatives, the temptation is quite strong to perform early amputation before, or at the first evidence of peripheral didital death. Haste in amputating, without first employing conservative measures, will often sacrifice extremities which might have been saved. In many instances, even though palpable pulsation of the vessels is wanting, patients will carry limbs for years with lessened pain and arrested disease after one or more toes have been lost. If the process is rapidly gangrenous and conservative measures are indicated, early high amputation should be advised to obviate the greater dangers of delay."

In conclusion, a survey of the literature brings out the fact that there is much confusion in regard to the identity of the clinical syndrome referred to as *endarteritis obliterans*, and leads one to the belief that the so-called neuroses, erythromelalgia and Raynaud's disease may very well be but initial manifestations of a condition of which Buerger's thrombo-angitis obliterans is the terminal stage, although this common etiologic derivation is stoutly denied by many observers.

The chronologic progress of the lesion of the disease is described by Buerger as (1) an acute inflammatory lesion with occlusive thrombosis, the formation of miliary, giant-cell foci; (2) The stage of organization or healing, with the disappearance of the miliary giant-cell foci, the organization and canalization of the clot, the disappearance of the inflammatory products, and (3) The development of fibrotic tissue in the adventitia that binds together the artery, veins and nerves.

Treatment, other than complete amputation of the gangrenous area, is unsatisfactory. Arterio-venous anastomosis, femoral vein ligation, with or without simultaneous intravenous administra-

tion of Ringer's solution, and all local measures, have been tried without sufficient success to warrant their recommendation as a routine.

As the disease seldom comes under observation except in its terminal stages, immediate high amputation appears to be practically the only resort.

REPORT OF CASE

C. H. L. Carpenter, age thirty-eight, admitted to surgical ward at St. Luke's Hospital, February 13, 1923, on account of purplish discoloration of left foot extending up ankle. No definite line of demarcation. Skin cold, with a constant burning tormenting pain in this foot, making sleep impossible.

FAMILY HISTORY—Father died at the age of fifty-six of Bright's disease. Mother living and healthy, age sixty-seven. Two sisters and two brothers living and in good health. One sister died at the age of thirty-four with influenza in 1918.

PAST HISTORY—During childhood had measles, whooping cough and chicken pox. Patient does not remember dates of those diseases but is positive he had no complications. At the age of eighteen had malarial fever. Was under treatment two months. No recurrences. Had no operations. In 1905 fell from a run-away horse and received laceration of forehead, right side, scalp margin, about six inches in length. This was sutured at the old St. Luke's Hospital, patient leaving hospital same day. In 1920, while jumping from a six-foot fence, had a simple fracture of the left ankle, probably Potts. After same hopped on right foot about a block to saloon and started drinking to relieve pain. Patient states the next thing he remembered he was at police station where they had to cut shoe away from foot on account of marked swelling. Ankle was not seen by a physician until the next day, when it was put up in a cast in which it remained for about two months. He then used crutches for about one year, and after that used elastic support for about two years. Since then was able to move foot up and down, but not laterally. Denies ever having had gonorrhea or sore. Was married in September, 1921, lived four months with wife and then separated.

He never used tea, although he drank about six cups of black coffee daily. Seldom chewed tobacco. Smoked an average of thirty cigarettes daily since he was twelve years old. Alcohol was his special weakness. Since the age of eighteen

he has averaged at least a pint of liquor a day. At intervals, would often get drunk. Since prohibition went into effect he would drink moonshine. When that was not obtainable would drink lemon extract, bay rum, denatured alcohol, etc. Drinking some of these liquors would cause him to lose memory of affairs.

In the fall of 1920 he was in such nervous condition, due to heavy drinking, that he was not able to work any longer, and he has not done any real work since.

The following are extracts from incomplete hospital records, including St. Luke's Hospital:

On January 23, 1922, patient was admitted to the county hospital on the verge of delirium tremens. Physical examination was negative except for marked nervousness. Wassermann, taken January 26, was negative. Urine negative. No mention made of any leg symptoms. Temperature was normal. Pulse ranged from 75 to 88. He was put on elimination treatment and strychnin, and was discharged (improved) March 1, 1922. Diagnosis: Alcoholic neurosis.

On leaving the County Hospital he did odd jobs around his home and started drinking again, resulting in his former nervousness. Received some office treatment, but as he could not be controlled he was sent to St. Luke's Hospital June 17, 1922. That date was the first time he noticed a peculiar cramping of the calf muscles of both legs, more marked in the left. The next morning spinal puncture was done, which caused him to have severe headache for about one week. Leg symptoms did not appear again during this stay in the hospital. The Spinal Wassermann and Blood Wassermann were negative. Spinal fluid was clear and reduced Fehling solution. Globulin was negative.

There were five lymphocyte cells per cubic millimeter. He was put on elimination and strychnin, and on account of his headache, aspirin. Admission diagnosis: Alcoholic neuritis. Discharge diagnosis: Auto-intoxication. He was discharged July 3, 1922, and was again admitted to St. Luke's Hospital August 22, 1922. At this time he had definite symptoms of diminished circulation in the arteries of both legs, muscular spasms, transitory swellings, formication and temporary loss of sensation. Pain in the left leg was much worse than in the right leg. Started in the toes, ankles and running up the tibia to the knee. When the feet were elevated, the right foot and leg ceased to hurt. The left was not

affected by elevation. He also complained that the muscles in his left arm and hand ached, but this only lasted for a few days.

Physical examination was negative except that the sensation to touch in extremities was present, but patient was unable to locate spot touched. Sensation to pain was somewhat deadened, especially in the left lower leg and foot. Sensation to cold and heat impaired in left leg and foot. No mention was made as to whether or not pulsation of arteries was present. Urine September 8, 1922, was negative. Blood total red, 4,400,000. Total white, 6,700. Differential: Small lymphocytes 23%. Large lymphocytes 15%. Large mononuclear 16%. Transitional 3%. Polynuclear 42%. Sosisinophiles 1%. Temperature ranged from 97° to 99° F. Pulse from 75 to 90. Treatment consisted of codein for pain and sodium cacodylate every other day, and hot water bag to limbs. His admission and final diagnosis was alcoholic neuritis. He was discharged September 9, 1923. No progress notes reported.

After discharge from hospital, he received treatment at the City Dispensary twice weekly. He began drinking and developed a staggering gait with difficulty in locomotion.

During the week of Christmas, 1922, the big toe of the left foot turned purple. He was sent from the City Dispensary to the County Hospital January 4, 1923, with a provisional diagnosis of pseudo tabes. Record of physical examination at this time could not be located. Urine January 4, 1923, was negative. Blood Wassermann January 5, 1923, was positive, three plus. He was given one dose of mercurialized serum and one dose of salvarsan.

At the time of admission patient possessed four ounces of denatured alcohol, which he tried to drink. He misled the doctors. His conduct was very bad. Patient states that during this time, two more toes turned a purplish discoloration. After trying to get some alcohol, patient asked for and received his discharge, January 23, 1923. He went home and remained in bed, a local physician gave him H. M. C. tablets for pain, and some vaccines for his leg condition, and finally decided that the foot had to be operated on for drainage of an abscess. On February 12, I first saw this patient at his home and advised him to go to the hospital.

February 13, patient entered the surgical service of St. Luke's Hospital. An admission

diagnosis of thrombo-angitis obliterans was made. Examination in accident room at time of admission showed a very faint pulsation of left femoral artery and Scrap's triangle. No other pulsation of left foot felt. Symptoms were those formerly mentioned. Urine February 14, 1923, showed a trace of albumin with rare hyalin casts. Blood: Total red, 6,000. Differential: Small lymphocytes, 9. Large lymphocytes, 9. Polynuclear, 72. No malaria parasites present. Blood Wassermann was negative. X-Ray was negative for any pathology. No shadows of blood vessels were seen. Treatment consisted of codein and morphin for pain. The intravenous Sodium Citrate method was tried, not with hope of success, but with the idea of reducing the high viscosity of blood as found in all types of gangrene. 50 c.c. of 2% sodium citrate was given intravenously twice daily for a total of 500 c.c.

On February 24, left leg was amputated at its middle third. The Moskowitzky hyperemia test for collateral circulation was not performed. Skin above ankle was good. Muscles of the lower third were unusually dark. After removal of foot, the large vessels did not bleed. Catheterization and irrigation of arteries to remove clot was not done as it was decided that a much higher amputation was necessary. Patient was a hard subject for anesthesia and further operation postponed for later date.

After operation patient still complained of pain in leg. March 1, five days after first operation, he was again sent to operating room. A red thrombo about three-quarters of an inch long was removed from the mouth of the remaining portion of the femoral artery. Patient was in marked shock. Shock treatment was immediately administered. Since then the patient has made a fairly normal recovery. Discharged from St. Luke's Hospital May 1, 1923. Cured.

Before closing, I want to extend my appreciation to Dr. Ben Manhoff, interne St. Luke's Hospital, for his hearty cooperation in the compilation of this case report.

REFERENCES.

- Diagnostic and Prognostic Value of the Oscillometric Index in Obliteration of the Arteries of the Limbs. P. Balard, *Progres Med.*, 32:217, 3d Ser., 1917.
- The Vasodilatory Reaction Following Resection of a Segment of Obliterated Artery. R. Leriche and J. Heitz, *Compt. Rend. Soc. De Biol.*, 80:160, 1917.
- Spontaneous Gangrene from Enderitis Obliterans. A. Ravogli, *Arch. Dermat and Syph.*, 2: 617, Nov., 1920.
- Prepulse-Disturbing Stage of Enderitis Obliterans. M. Strunsky, *J. A. M. A.*, 76:519, Feb. 19, 1921.

Obliterating Endarteritis. H. W. Frauenthal, *Internat. Clin.*, 4: 62, 1918.

Thrombo-Angitis Obliterans. G. P. Muller, (Buerger). *Surg. Clin. N. A.*, 2:169, Feb., 1922.

New Method of Treatment of Thrombo-Angitis Obliterans. S. Silbert, *J. A. M. A.*, 79:1765, Nov. 18, 1922.

Non-Syphilitic Arteritis of Jews. A. Gilbert and A. Coury, *Paris Med.*, 12:13, July 1, 1922.

Obliterating Endarteritis. Types and their Surgical Importance. C. F. Painter. *Boston M. and S. J.*, 159: 36 and 80, 1908.

Thrombo-Angitis Obliterans: A Study of the Vascular Lesions Leading to Presenile Spontaneous Gangrene. Leo Buerger, *Am. J. A. Sc.*, 136:567, 1908.

Obliterating Endarteritis. H. W. Frauenthal, *Internat. Clinics*, 28th Series, 4:62, 1918.

Obliterating Endarteritis of the Digitalis Dorsalis and Plantares. H. W. Frauenthal, *J. Adv. Therapeutics*, 28:265, June, 1918.

Alterations in Arterial Structure and Their Relation to Syphilis. H. M. Turnbull. *Quart. J. M. (London)*, 8:201, 1914-15.

Treatment of Peripheral Gangrene in Thrombo-Obliterans. Nathaniel Ginsberg, *Trans. Coll. Phys.*, 3rd Series, 38:226, Philadelphia, 1916.

The Treatment of Gangrene of the Foot by Arteriovenous Anastomosis. G. P. Muller, *Ann. Surg.*, 51:247, 1910.

The Futility of Arteriovenous Anastomosis in the Treatment of Impending Gangrene of the Lower Extremity. DeW. Stetten, *Surg., Gynec. and Obst.*, 20:381, April, 1915.

ENDOCERVICITIS*

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No disease of the female organs will compare in frequency, in my opinion, with that of Endocervicitis.

Every doctor of experience has had occasion to verify this statement. It must, therefore, be conceded that no other disease of the uterus has been so ignorantly handled, abused by the tyro, which circumstance is responsible for most of the uncalled-for curettements inflicted on this organ by the general practitioner.

It is consequently of sufficient importance to discuss with you the treatment of this common ailment,—for grave sequelæ often follow neglected cases.

Ill-health, backache, retroflexion, focal and proximal infection, sterility and cancer are some of the prominent, frequent consequences of the disease; cancer, the most-dreaded of all these, being nearly always the sequel of an overlooked endocervicitis, or cervical laceration.

To understand and appreciate the peculiar vulnerability of the cervical canal to infection, it is essential to know something of its anatomy and physiology.

In the first place, it is, physiologically, functionally not a part of the uterus proper. Its functions and its structure are different. It has an independent lymphatic and nervous system, it has a looser muscular stroma, its cavity has a well-known separation, the internal os, from that of the body.

The mucous membrane of the body has a distinct basement layer between that of the mucous glands and the muscular layer. On the other hand, the cervical membrane has no definite base; its racemose glands penetrate to considerable, irregular depths directly into the underlying muscular fibers, thus inter-communicating intimately with the lymphatic channels in the muscular tissue.†

The lymphatic vessels of the cervix travel up on the outside of the organ, between the uterosacral ligaments to several large glands resting on the bifurcation of the iliacs. On the other hand, the lymphatics of the body and fundus of the organ form into large vessels which run outward in the folds of the broad ligaments between the ovary and the tube.

A severe infection may therefore permanently infect the deep cervical endometrium, may travel upward through the uterine cavity, pass into the tubes, and create a permanent salpingitis, without having seriously affected the corporeal endometrium at all. Nature has made the latter important structure wonderfully resistant to trauma, infection and human ignorance.

And so you will realize that infection in the cervical endometrium has two routes of traveling upward, the lymphatic outward and the broad road through the cavity.

Acute and sub-acute endocervicitis, and many cases of chronic endocervicitis are amenable to local treatment, but a great many of the chronic type resist all measures short of a complete removal or destruction of the diseased membrane.

I shall briefly outline only such treatments with which I am personally familiar, the details of which must be left to yourselves.

Prominent among the remedies used for local applications are silver nitrate 10 to 20 per cent solution, tincture of iodine, picric acid 1%, mercurochrome 1%,—usually supplemented by

†The gross appearance of the mucous membrane to the naked eye is in striking contrast with that of the body, the latter being comparatively smooth with very light folds, while the former is arranged in deeper folds or rugæ and form the well-known arbor vitæ appearance.

*Read before the Florida Midland Medical Society, October 24, 1923, at Bartow, Fla.

tamponades of lamb's wool and cotton, containing various medicaments in a glycerine menstruum: glycerite of tannic acid with small quantities of carbolic acid and tincture of iodine is my favorite combination. Boroglyceride, ichthyol, hydrastine and several other remedies are excellent. It is important when making topical applications to the canal not to wound the membrane and to cleanse out the tenacious secretions first, which is best effected by narrow strips of gauze saturated with a strong solution of borax and bicarbonate of soda. This can also be used to scrub the vagina, as ordinary douches do not cleanse the vagina.

Very satisfactory results are often obtained by gently packing the cervical with a narrow strip of gauze saturated with picric acid or mercurochrome solution and removed in a few hours by the patient herself. To be repeated two or three times a week for a short time.

Various gynecologists favor various surgical procedures. Some resort to trachelorrhaphy, others to curettement of the endocervix without severely disturbing the uterine cavity, except to thoroughly dilate the internal os. One writer lately recommended packing with gauze containing a strong potassium hydrate solution to destroy the endometrium. I have never seen this done. If used, great care must be exercised, as it is a powerful caustic. After curettement, pack the cervix for a few hours with a strip of gauze saturated with picric acid and mercurochrome solution. By leaving an end of the strip projecting from the vulva, the patient may remove it herself.

Exsection of the mucous membrane by the method of Dr. Sturmdorf, of New York, has never failed to give me good results. It consists in cutting out a conical, pyramidal section of the endocervix, the apex reaching to the internal os; the upper and lower margins being then sutured together. The operation is simple, and leaves the cervix to all appearances like a smooth nullipara. No further trouble has been experienced in these cases, the cervix functioning normally, in labors and otherwise.

This, I believe, is far preferable to any mutilating operation.

In concluding this short discussion of the subject, let me entreat you to forego the temptation to indiscriminately curette the corporeal endometrium. . . Of course, when required, dilate thoroughly and curette, remembering that drainage is the essential element in these cases.

REPORT OF 346 CASES OF APPENDICITIS FROM THE RIVERSIDE HOSPITAL.*

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Six years ago at the Atlantic Beach meeting of this society we reported the cases of appendicitis from the Riverside Hospital for the seven previous years. Our conclusion, in 1917, was as follows: "First, the convalescence is smoother where drainage is not used; second, the average hospital time for a patient was 10½ days in non-drainage against 22½ days in drainage cases; third, in the non-drainage cases there were no deaths, while in those that were drained there was a mortality of 7 per cent."

Our report today consists of 346 patients who were operated upon between April, 1917, and January, 1923. The average hospital time where drainage had not been used was 11.4 days, and 19.4 days where drainage had been used. Where drainage had not become necessary the mortality was .5 per cent; where drainage had become necessary the mortality was 4.6 per cent. The comparison of these two groups of cases demonstrates clearly the advantage in hospital time and immediate mortality, of operating before drainage becomes necessary. We have attempted by our present study to determine, from the ultimate results, the advantage of the early over the delayed operation.

In this group from 1917 to 1923, the oldest patient was 69, the youngest 4 years. The average age was 25.5 years. One hundred and seventy-four were male, 172 were female. There occurred in the following percentages: Pain, 93.4 per cent; nausea, 76.7 per cent; vomiting, 62½ per cent; constipation, 28.9 per cent; fever, 63.8 per cent; tenderness, 97.1 per cent; palpable mass, 11 per cent. Sixty-eight patients, that is, one out of five, had had previous attacks of appendicitis. We find of the acute cases with former attacks that in 75 per cent of them no drainage had been used, while 25 per cent had been drained.

TABLE 1.

Total number of cases	346
Answered	196
Not answered	150
Year	1917 1923
Hospital time, no drain	10.5 days 11.4 days
Hospital time, drainage	22.5 days 19.4 days
Mortality, non-drainage	0.0 % .5 %
Mortality, drainage	.7 % 4.6 %

*Read before the Fiftieth Annual Meeting of the Florida Medical Association, held at Jacksonville, May 15, 16, 1923.

Oldest, 69 years; youngest, 4 years; average, 25.5 years.

<i>Symptoms:</i>	
Pain	93.4%
Nausea	76.7%
Vomiting	62.5%
Constipation	28.9%
Fever	63.8%
Tenderness	97.1%
Mass	11.0%
<i>Previous attacks</i> 68	
<i>Acute non-drainage</i> 75%	
<i>Acute drainage</i> 25%	

Three hundred and forty-six patients came to operation. The postoperative diagnoses were: Acute, 210; abscess, 45; peritonitis, 18; chronic appendicitis, 73. Of those that were diagnosed acute there were: Catarrhal, 49; subacute, 94; gangrenous, 41; recurrent, 12; perforated, 14. Of the chronic type there were 62 sclerotic, 3 catarrhal, and 8 recurrent. Of those with peritonitis, 14 were general and 4 local. At operation we found only 18 with concretions and 184 without; there was no record of 144. Drainage was used in 128 of the 346 patients operated upon.

We received 196 replies from patients to a follow-up letter. One hundred and forty-three pronounced themselves cured, 40 improved, and 13 not cured. The families of two patients reported that they had died of influenza, one six months and one twelve months after leaving the hospital. Eighty-eight per cent of the patients gained in weight on an average of 17 pounds, while twelve per cent lost weight on an average of 14 pounds. The average time in which the patient returned to his work, after leaving the hospital, was eight weeks; the shortest time one day and the longest, one year. Within four weeks after discharge 48 per cent had gone to work and within eight weeks, 77 per cent. Where no drainage had been used the patient's average time before resuming occupation was five weeks; where drainage had been used the time was between six or seven weeks; where peritonitis had been present the average time was eleven weeks.

The end results of our present group show in the acute cases practically the same percentage of cured, improved and not improved, when drainage was used as when it was not used. The figures are 78 per cent cured, 18 per cent improved, and 4 per cent not improved.

Of the 196 patients from whom we received replies, 93 reported that they had at the present time some symptoms which they referred to the gastrointestinal tract. We were surprised to find that of these 93 patients, thirty we had diagnosed as chronic appendicitis, while sixty-three we had diagnosed as acute appendicitis.

TABLE 2.

<i>Diagnosis:</i>		<i>Result:</i>	
<i>Acute</i>	210	<i>Replies</i>	196
<i>Catarrhal</i>	49	"Cured"	143
<i>Sub-acute</i>	94	"Improved"	40
<i>Gangrenous</i>	41	"Not Improved"	13
<i>Recurrent</i>	12	<i>Died</i>	2
<i>Perforated</i>	14	<i>Gained Weight</i>	88%
<i>Abscess</i>	45	<i>Average Gain</i>	17 lbs.
<i>Peritonitis</i>	18	<i>Lost Weight</i>	12%
<i>General</i>	14	<i>Average Loss</i>	14 lbs.
<i>Local</i>	4	<i>Time Before Resuming</i>	
<i>Chronic</i>	73	<i>Occupation:</i>	
<i>Sclerotic</i>	62	<i>Average</i>	8 weeks
<i>Catarrhal</i>	3	<i>Longest</i>	1 year
<i>Recurrent</i>	8	<i>Shortest</i>	1 day
<i>Concretions</i>	18	<i>To Occupation with-</i>	
<i>No concretions</i>	184	<i>in 4 weeks</i>	48%
<i>No record</i>	144	<i>To Occupation with-</i>	
<i>Drainage</i>	128	<i>in 8 weeks</i>	77%
<i>No drainage</i>	218	<i>Average time when no</i>	
		<i>drainage</i>	5 weeks
		<i>Average time when</i>	
		<i>drainage</i>	6-7 weeks
		<i>Average time with</i>	
		<i>Peritonitis</i>	11 weeks

The symptoms noted by these patients were indigestion 41, pain in the scar 30, constipation 30, gas 11, sour stomach 9, belching 6, nausea 4, vomiting 3, colic 2, dysmenorrhea 1, colitis 1, nervousness 1. Two patients had postoperative abscess and four postoperative hernia.

In the group of cases of acute appendicitis without drainage there were 77 complaints; in the group of chronic, which of course were not drained, 37 complaints. This leaves only 24 complaints distributed among those of the acute with drainage group. With drainage, abscesses, and peritonitis cases, such a finding was surprising, as we quite naturally thought that the more difficult the patient's immediate convalescence, the less complete would be his ultimate relief from symptoms. We had expected the so-called chronic cases to give the greatest number of postoperative symptoms, but to our surprise 63 per cent of the acute non-drainage cases had some complaint as compared with 54.5 per cent of the chronic. We believe that this must be accounted for by the personal equation at operation in diagnosing what is the acutely inflamed, the chronic, or the normal appendix. We know of five cases of postoperative hernia, four of which occurred where drainage had been used; the other occurred in a secondarily infected wound. Four patients have had subsequent abdominal operations; three were gynecological, and one, which belonged to our chronic group, had a stone removed from the right ureter.

It was very instructive to observe how the need for drainage increased the longer the attack had been in progress. In the six instances where the

operation was performed within twelve hours, no drainage was used. When the operation was done between twelve and twenty-four hours drainage was not used in 18 and was used in 11. When the operation was done between twenty-four and forty-eight hours, no drainage was used in twenty and was used in six. After two days and before four days, drainage, while not necessary in twenty-four instances, had become necessary in thirty. After the attack had been in progress four days or more, in only five could the drain be omitted, while it had become necessary to drain in thirty.

This comparison of drainage and non-drainage cases with reference to the time which had elapsed before the operation was performed, show quite clearly the advantage of operating early to avoid drainage. The best time to operate is within the first twelve hours. Our figures indicate that when the operation is done within forty-eight hours the surgeon will need to use drainage only one out of four times; but if the operation has been delayed more than two days he will need to use drainage twice as often as he can omit it. After the fourth day of the attack the process usually subsides or progresses to the stage where it becomes necessary to drain for abscess or peritonitis.

TABLE 3.

Patients having complaint following operation.....	93
Acute Cases	63
Chronic Cases	30
"Indigestion"	41
Painful Scar	30
Constipation	30
"Gas"	11
"Sour Stomach"	9
Belching	6
Nausea	4
Vomiting	3
Colic	2
Dysmenorrhœa	1
Colitis	1
Nervousness	1
Hernia	4
Abscess	2
Total Complaints ...	138
Acute, no drain.....	77
Acute, with drain....	24
Chronic	37
<i>Complaint:</i>	
Of Acute Non-drain cases	63.6%
Of Chronic cases..	54.5%

Time Before Operation, After Beginning of Attack.
150 Cases, Acute Type.

	No Drain.	Drain.
Operation, immediate	6	0
Operation, 12-24 hours	18	11
Operation, 24-48 hours	20	6
Operation, 2-4 days	24	30
Operation, after 4 days	5	30
Operation, within 48 hours	44	17
Operation, after 48 hours.....	29	60

CONCLUSION.

This second report of our cases of appendicitis adds evidence to the wisdom of *early* operation; for we have seen from this: First, that operation before drainage has become necessary results in

a shorter hospital time and a far lower mortality; second, that our patients return to their occupation earlier where drainage has not been used; third, that the earlier the operation the less frequent will be the need for drainage.

THE MECHANICS OF PELVIC REPAIR*

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As long as the world lasts the vast majority of physicians who are delivering children will encounter the problem of cervical and perineal lacerations and their immediate repair. In exact proportion to their solicitude for their patient and their anatomical knowledge of the pelvic and perineal structures will the deferred repair work of the gynecologist and the general surgeon be diminished.

A careful and painstaking examination of the cervix and perineum, immediately following the third stage of labor, and the prompt repair of any laceration discovered during this examination, is the duty of every obstetrician. This procedure, routinely carried out, will markedly diminish maternal morbidity and we will have a race of mothers more willing to bring children into the world.

Nothing is more distressing than to see a fine specimen of womanhood wracked by backache, discouraged by leucorrhœa and distressed by a train of bladder symptoms, trying to be a patient mother and a loving wife; and nothing is more gratifying than to see the change in this lady when she has been relieved of her symptoms by a properly performed repair of the lacerations and a lasting replacement of her displaced organs.

In order to properly repair lacerations and restore the anatomical relations of the pelvic structures, we must first be conversant with the normal anatomy of the parts and must thoroughly understand the progressive steps which led to this anatomical catastrophe. Unfortunately we are not in absolute accord on either of the questions and many of us have, for years, adopted a routine procedure to meet all degrees of misplacement from simple retrocession to prolapsus, without adequate consideration of the problems

*Read before the Fiftieth Annual Meeting of the Florida Medical Association, held at Jacksonville, May 15, 16, 1923.

to be conquered. Others of us have searched for the bizarre in remedial operative procedures to the extent that we have overlooked the better simple methods.

The first problem to be considered is the source of uterine support and equilibrium. Here we have two schools. The one declares that the uterus is supported from above by its ligaments and the other that it is supported from below by the perineal body—whatever that may be. This question is easily and definitely settled by an examination of those cases of third-degree laceration of the perineum, in which cases the uterus will invariably be found in perfect position. I operated but yesterday upon a case of third-degree laceration of ten years' standing and found the uterus in absolute anatomically correct position.

This brings us to the declaration which we make with perfect assurance, that the uterus is supported from above and for the most part by its ligaments. I say, "for the most part," advisedly because I believe that intra-abdominal pressure plays no small part in maintaining a normal anteversion. It is well known that the uterus has more and stronger ligaments, weight for weight, than any other organ in the body, and the natural presumption is that these are for the purpose of support.

It is this bald statement, "that the uterus is supported from above by its ligaments," that has led us into error in our corrective operation procedures. We have gotten such a large percentage of cures of retrodisplacements by the simple or difficult shortening of the round ligaments, the simplicity or difficulty of the procedure being dependent upon the type of shortening elected, that we have been inclined to overlook or at least minimize our 30 per cent of failures. Anyone who operates will tackle a retrodisplacement with perfect assurance and be thoroughly satisfied with some method of shortening of the round ligaments. Most men who operate will as readily tackle a decensus or a prolapsus and without, it is true, the same ready assurance, will drag the fundus up as high as possible and fix it, more or less securely, to the anterior wall, or do a hysterectomy and not feel conscience-stricken when the patient fails to get rid of the distressing bladder symptoms or when he has changed the symptomatology from a constant bearing-down to a constant pulling sensation.

It is the purpose of this paper to discuss the mechanics involved in normal uterine position,

in the causes of malpositions, and in the reparative processes undertaken by the surgeon.

I have never been able to forget Dr. J. Riddle Goffe's statement as to the support of the uterus as he gave it to us when I was a medical student. I quote verbatim:

"The uterus is supported, in a state of unstable equilibrium, in the midpelvis, by its ligaments, between the rectum, upon which it encroaches when retrodisplaced, and the bladder, which, as it fills, displaces it backward temporarily * * *

He laid great stress, as all gynecologists of his time and school, upon the importance of the round ligaments as the mainstays of support.

As years roll by and experience piles up I am more and more inclined to the position that the round ligaments serve a three-fold function:

(1) To hold the pregnant uterus forward until it shall have attained sufficient size to reach above the promontory of the sacrum, upon which it can rest, thereby preventing retrodisplacement by weight, with consequent chance of incarceration and inevitable miscarriage.

(2) To return, by their elasticity, to the normal position, a uterus which has been displaced backward by a distended bladder.

(3) To serve as a crutch for us poor mortals who would be surgeons, for their muscular strength is such that they will usually support a uterus when we have dragged it into position by some one of the various operations performed upon them, despite the fact that we have not remedied the principal anatomical defect.

It is only recently that it has been forcibly brought to my attention that the uterus is supported in the same fashion that our commonly used pessary is held in place; namely, by counter pressure or pull against a pivotal point. We can hold an ordinary lead pencil in the perpendicular position either by placing the ball of the thumb and index finger of one hand against one side of the pencil and the ball of the index finger of the other hand upon the opposite side; or by exerting a pull upon opposite sides instead of a pressure. The illustration holds good for the uterus. The pivotal point is the internal os at which point the uterus is pulled upward and backward by the uterosacral ligaments while the forward pull is accomplished by the round ligaments and the uterovesical ligaments. In addition we have the force of intra-abdominal pressure applied to the posterior face of the uterus to aid in keeping it in normal anteversion. The same

force when misapplied to the top of the fundus or the anterior face aids in causing decensus and retroversion.

Most of us as readily overlook the fact that, when the woman is in the standing posture, the normal uterus is about at right angles to the axis of the body, as we overlook the pivotal point and fail to attack the stretched-out uterosacral ligaments in the correction of retrodisplacements. This point has been forcibly brought to my attention by the results obtained in attacking the problem from below and shortening the uterosacral ligaments vaginally by the method of Jellett.

In short, I believe that one can secure anatomical results by restoring only the uterosacral ligaments to their normal position. But in doing this we could commit as great an error as we are now committing in shortening only the round ligaments. For, in cases of backward displacements, the round ligaments are stretched out and will have to be shortened to function properly as stated above in functions (1) and (2) of the round ligaments.

The vast majority of cases of retrodisplacements are caused by perineal lacerations. It is to this class of cases that we intend to confine ourselves in this paper.

A fair question from a member of the school who hold that the uterus is supported from below would be, "If the uterus is not supported from below, why do lacerations of the perineum cause retrodisplacements?"

The answer is simple. The functions of the levator ani are:

(1) To lift the perineum over the advancing fecal mass after directing it towards the anus, in defecation.

(2) To retract the perineum before the advancing fetal head after directing it towards the vaginal orifice.

(3) To prevent hernia of the rectum into the vagina.

Lacerations of the perineum are usually a separation of the segments of the levator ani muscle either in the midline or to one side or the other of the perineum. This separation allows a true hernia of the rectum into the vagina which we have named rectocele.

The fecal current is constantly directed downward towards the anus. As it enters the rectum from the sigmoid it is directed against the curve of the sacrum. The sacrum being harder and un-

yielding, the current is deflected upward towards the vagina. The levator contracts, being harder than the fecal mass, it, in turn, deflects it against the sphincter ani, which is lifted up by the contraction of the levator and stimulated to open and the fecal mass is born.

When the levator is torn, the fecal mass, deflected from the sacrum, meets no obstruction other than the anterior rectal and the posterior vaginal walls, and it bulges into the vagina through this hernia until the posterior vaginal wall is stretched to its capacity, before it is deflected against the sphincter. The degree to which this occurs depends upon the extent of the laceration. If the sphincter too is torn there is nothing to keep the fecal mass in and, consequently, there is no stretching of the posterior vaginal wall. With the sphincter intact, the posterior wall is stretched to capacity and each stretching increases the capacity until I have known a patient to state that she could not evacuate her bowels at all until she had first pushed the rectocele back into her vagina with her finger.

This stretching of the posterior vaginal wall shortens the distance between the introitus and the internal os, or the attachment of the posterior wall of the vagina to the posterior wall of the uterus which is at the internal os, and causes a direct pull on the pivotal point of support, with consequent stretching of the uterosacral ligaments permitting the decensus and secondary stretching of the round ligaments allowing the uterus to drop backward away from the anterior wall so that the force of intra-abdominal pressure is directed upon the top of the fundus, which would theoretically, and frequently does practically, carry us through all the steps from retrocession to extrusion of the fundus from the vagina.

Hence we must repair our perineum and repair it properly, by approximating the separated segments of the levator ani muscle, if we wish our replaced uterus to remain in position.

A factor which must not be overlooked in the causation of retrodisplacements, is subinvolution following parturition, in which case a heavy uterus is not properly held forward by relaxed round ligaments and the force of intra-abdominal pressure misapplied to the anterior face of the uterus retroverts it and holds it in that position. This factor can be successfully combatted by the obstetrician by posture following delivery. Allow the patient to sit up in bed early, before the fundus has involuted to a position below the prom-

ontory of the sacrum, and make a routine examination on the tenth day and the sixth week and insert a well-fitting pessary if you find the uterus retroposed.

Lacerations of the anterior vaginal wall, while not as frequent as those of the posterior wall, are nevertheless not uncommon. They are usually caused by a full bladder getting caught between the symphysis and the advancing head so that, with each pain, the advancing head, by pressure upon the urethra, prevents the bladder emptying itself and at the same time extrudes the full bladder from the vagina until the limit of stretching is reached, and the fascia supporting the bladder ruptures and allows a hernia of the bladder into the vagina. It may also be ruptured by too forcible delivery of the anterior shoulder under the symphysis and by the blade of the forceps carelessly withdrawn when the head is in the introitus.

This laceration causes one of the most distressing symptoms met with in gynecology, namely cystocele. The bladder pouches down into the vagina and in efforts at stool protrudes from the vulva. What was once a flat trigone, on a level with the urethra, now becomes a pouch which always contains urine which the patient is unable to void and we have frequency of urination due to two causes: First, the bladder never entirely empties itself and consequently becomes full again much more quickly. Second, we have residual urine always present which decomposes and causes trigonitis with resultant frequency and urgency of urination. If you look into these bladders you will readily see that the floor of the bladder has changed its attachment on the fundus. It has slid down to a greater or less degree dependent upon the extent and long-standing of the laceration. The cause of the symptomatology is the pouching of the bladder. To relieve the symptom you must restore the trigone of the bladder to its normal position on a level with the urinary meatus. Many operations have been devised to cure cystocele, but most of them without due consideration for the mechanical cause or the anatomical remedy. The interposition operation is very popular. In this operation we defy anatomical considerations, sterilize the patient, and exchange a pouch in front for one behind. The Emmet operation of puckering the anterior wall is but a poor makeshift. The most common operation is that of a high ventral fixation of the uterus. To employ this is but a confession of

one's inability to properly cope with the situation.

The only anatomical operation is the Goffe cystocele operation, in which the bladder is entirely freed from its attachments and reattached higher up on the fundus with the trigone spread out in its normal position by means of three sutures. A good addition to this operation is the Rawls cystocele operation which laps the fascia of the interior wall much like the Mayo operation for ventral hernia. I have done this operation many times and have had the patient cystoscoped before and after operation to demonstrate the anatomical correctness of the operation, and the results prove themselves that you have as nearly an anatomically correct position of your bladder as is possible under the conditions. The patients are relieved of their symptoms and do not get recurrences.

The other laceration that we have to consider in this paper is laceration of the cervix. This laceration is caused by forceps, by avulsion, by pituitrin used when it is really contra-indicated, and not infrequently by inability of the cervix to dilate due to pathological changes due to age or disease. There are three functioning parts of the cervix. The internal os keeps infection out and the fetus in. The longitudinal muscle fibers are the medium by which the cervix is thinned out in the first stage of labor. They contract and draw the cervix up into the body of the uterus. And the glandular part of the cervix which, by secreting a thick tenacious mucus, keeps the cervix plugged and aids in keeping out infection, and they also lubricate the cervix with a thinner mucus.

We are concerned in surgery in removing diseased tissue and either leaving the parts in, or restoring them to, as near the anatomical normal as possible.

In the presence of a cervical laceration of old standing we have a secondary infection of the glands which cannot be cured except by removal of the diseased tissue. We have to restore the cervix so that it will function anatomically; this means that we must conserve the longitudinal muscle fibres. The only operation which meets both of these indications and gives us a nearly anatomically perfect cervix is the Sturmdorf operation which reams out the diseased glands and leaves the longitudinal muscle fibres, covering in the defect with a flap from the vaginal mucosa of the cervix.

CONCLUSIONS.

Our first duty is to prevent disease. Prompt repair after obstetrical procedures, the avoidance of the improper use of instruments or oxi-toxics, precautions to keep the bladder empty in the second stage of labor, and routine examinations after delivery.

Our second duty is to restore to as nearly anatomical perfection as is possible. Consider the mechanical defects and by a proper understanding of the mechanics of the cause and of the effect choose the operation which will give you the nearest approach to normal. Consider the pivotal point and attack the uterosacral ligaments as well as the round in retrodisplacements. In operating for cystocele replace the bladder as nature placed it, and leave the functioning longitudinal muscle fibers in the cervix.

DERMATITIS VENENATA.*

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Dermatitis Venenata is the name used generally by most medical men for the vesicular dermatitis produced by contact with certain common plants like ivy or sumac and, as such, it would hardly appear appropriate for an extensive study at the annual gathering of our State Medical Association. The writer wishes to assure you that such is not the case, that the subject of dermatitis venenata embraces a never-ending list of plant and chemical irritants that are productive at times of inflammations of the skin of varying degrees. Many of these irritants, both vegetable or chemical, are more or less irritants to all skins, some are harmless, or practically so, to a large number, while in others again the action is so exceptional as to be due to some peculiar idiosyncrasy. Among the well-known chemicals or drugs, which are known to produce an inflammation of the skin, may be mentioned sulphur, mercurials, arnica, mustard, cantharides, iodine, iodoform, procaine, carbolic acid, turpentine, tar, resorcin, dyestuffs, coal-tar products, varnish and stains, and many others. Among irritating articles and wearing apparel of everyday use, irritant to some individuals,

may be mentioned, strong medicated soaps, anilin and coralin dyes, especially in socks and veils. One of the most frequent cases of dermatitis venenata, and for obvious reasons occurring mostly in women, is hair-dye preparations that are harmless to the great majority, but will, in certain susceptible individuals, produce a dermatitis that is not only on the adjacent skin to which the hair tonic has been applied, but which may extend over the entire body. Certain cosmetic creams extolled for beautifying the complexion of the fair sex, even with printed advertisements on the jar of cream, asserting the harmlessness of the "simple" preparation, have been repeatedly found to contain a certain percentage of ammoniated mercury, and this used for some time will often produce a marked dermatitis.

Pyrethrum, or "insect powders or smudge", is at times the cause of a very violent and unusual dermatitis. The writer called attention to a case of this kind at the last annual meeting of the state society held at Havana, in the discussion of a paper on "Focal Infections".

The various trade dermatitis should be mentioned, i. e., inflammations of the hands, face and at times other parts of the body, from one's occupation, due to the constant handling of sugar, flour, polishing materials, paints, tobaccos, and similar substances. Metol and other chemicals used in photography are occasionally responsible for a very troublesome dermatitis. Quite recently numerous reports have been seen in the medical literature in regard to a troublesome dermatitis developing on the hands of dentists and physicians who are accustomed to the use of procaine anesthesia in their surgical work. The arsphenamine group is credited with being productive of a dermatitis on the hands of the medical men through contact with this chemical in the giving of injections.

Workers in petroleum products, especially coal-tar and its compounds, occasionally exhibit various kinds of cutaneous lesions, namely warty growths, chronic erythematous-squamous skins, papular and pustular eruptions.

Plants furnish a prolific source of skin irritations, idiosyncrasy plays an important part. The various plants that may provoke such irritations in susceptible individuals are at least seventy, and the known list is gradually increasing. The most common and best known of the plant group,

*Read before the Fiftieth Annual Meeting of the Florida Medical Association, held at Jacksonville, May 15, 16, 1923.

which produce dermatitis venenata is the rhus family. In seasons these plants produce the greatest number of cases of dermatitis venenata. The several plants of the rhus family are somewhat common in various parts of the country, and some are more poisonous than others. The rhus toxicodendron or ivy vine and the rhus venenata or poison sumac are the two most common of the rhus family, the former, in the writer's opinion, is more prevalent in Florida than the sumac; then, too, for some reason, rhus dermatitis does not appear so frequently in this climate of ours as it does further north. One thing certain, poison ivy is seen everywhere in our state, and it may be that we, who have been constantly exposed to the plant, have developed an immunity to this plant irritant; those who have lived in the city and make an occasional visit to the country where the rhus is prevalent at times develop a dermatitis at the least exposure. The clinical picture of this dermatitis is more pronounced from the poison from the rhus venenata than from the ivy. Aside from the two mentioned plant irritants, we have others of the rhus family which are rather limited in their distribution, the rhus diversiloba and rhus pumila, the former a climbing and the latter a creeping shrub, neither of which is familiar to the writer. Various plants are attributed to the production of skin irritations, they being too numerous to mention, but a few of the most common may be of interest. Nettle, primrose, smart-weed, oleander, balm of gilead, May apple, cowage, tomato plant, rhus, chrysanthemum and arbor vitæ, are a few of the best known.

The symptoms of dermatitis venenata are varied, depending upon the individual susceptibility of the patient, and upon the character and duration of exposure to the irritating substance. A simple dermatitis with a slight burning and itching sensation, or a marked vesiculation or gangrenous sloughing of the skin with the attendant pain and discomfort may be the case. In most instances the dermatitis runs an acute course and terminates spontaneously in recovery.

In subjects eczematously inclined, the artificial dermatitis may develop into a true eczema, more especially after having had two or more attacks of the dermatitis, or from a persistent exposure to the irritant.

It is not infrequent to encounter surgeons and nurses who in their preliminary cleansing of hands preparatory to an operation, have produced a dermatitis of the hands, caused by the use of strong soaps such as *sapo verides* or the use of lysol, bichloride of mercury solutions or tincture of iodine. This dermatitis may vary from a simple mild scaling, with some attending discomfort to an acute vesicular condition not unlike an acute eczema, with all the discomfort of the latter affection.

Thanks to our more humane and scientific training, we do not see so much of the formerly frequent dermatitis, due to the use of iodoform on the skin, but in the years gone by, when this drug was used for all and any kind of pus infection of the skin, it was not at all uncommon to see cases of iodoform dermatitis. Sulphur dermatitis is a very common condition met, usually brought about by the patient himself using the ordinary sulphur ointment on the skin indefinitely, for the cure of some supposed parasitic itch. Oftentimes the condition is produced by the physician by his ordering some form of sulphur ointment without giving any definite direction for the use of the same. A sulphur dermatitis is not difficult to recognize, but if care is not taken a diagnosis of scabies or urticaria may be wrongly made; especially of the former with a history of other cases with the same kind of itching in the household. The subjective symptoms of a dermatitis from the use of sulphur ointment are those of formication, some burning and itching, the patient describing his feelings as that of having ants on his skin. There may be some slight redness present, even not unlike urticaria, and if the ointment has been used for some length of time and extensively so, the eruption symptoms will not be unlike an eczema of the seborrheic type.

The use of arnica tincture has been the cause of some cases of violent dermatitis which may extend beyond the area where the medicine was applied, and there may be present an eruption of an erythematous, erysipelatous, bullous or even gangrenous type. The symptoms of the dermatitis following the prolonged or improper use of the ointment of chrysarobin, iodine, mercury, resorcin, and tar vary with the particular chemical used in the ointment base. The first named usually produces a diffuse erythematous eruption, even

to the point of vesiculation, the same may be said of iodine, while from the applications of mercurial ointments or tar, especially on the hairy regions of the body, the eruption may be of a follicular and pustular type.

At this point attention is called to the dermatitis that is often encountered after the use of an ointment on the skin, and an investigation having been made for this unexpected dermatitis, it is ascertained that the ointment at question was prepared with a rancid base, and the cause of the dermatitis can then be placed not to the chemicals incorporated in the ointment, but to the bacteria in the spoiled ointment.

The symptoms of the ordinary dermatitis due to contact to the irritations from a poisonous plant as the rhus species are dependent somewhat on the locations and personal resistance of the individual. In some instances the inflammatory reaction is such that one can scarcely believe that the case at question is one due to rhus. Itching is at times violent, vesiculation and swelling being all out of proportions to the usual picture of a simple dermatitis.

As a rule it is not at all difficult to make a diagnosis of dermatitis venenata, but in some instances it is impossible to ascertain what particular irritant is the cause of the inflammation. In the case of rhus poisoning the diagnosis presents no points of difficulty, the same to some extent being true after ascertaining that the patient has an occupation in which the parts are exposed to irritant chemicals, also in the case with the individual who has been using ointments of known chemical, irritant properties. But one has to use some skill in differentiating the present dermatitis from the original trouble for which the patient has been treated. In most cases the dermatitis is confined to certain parts, though this is not constant. The face and hands or other uncovered parts showing an erythematous condition, itching and of an acute type of inflammation, one is very likely to consider a dermatitis venenata, and a search should be made for the active cause of the inflammation.

In a consideration of dermatitis venenata it might not be out of order to call your attention to the fact that, in recent years, the general medical man and dermatologist as well have gradually reduced this group of skin affections that were formally defined as eczemas to a very insignifi-

cant issue. In other words, the promiscuous use of the term eczema for any and all itching skin affection of a doubtful origin is now past, just as much so as the application of the term malaria to doubtful illnesses. It is true that we do still occasionally see a dermatitis that can rightly be placed in the eczema column, but the vast majority of the recurring itchy skin conditions can be rightfully placed by a careful study of both local and constitutional conditions. Unquestionably external irritating factors, mostly chemical, at times vegetable or bacterial, can be found that are the active causes of recurring skin affections. Understand that an eczema is defined as an inflammation of the skin with certain definite symptoms due to some internal cause, generally unknown, while a dermatitis has about the same definition, only the external cause is the issue. I believe if we carry our studies further, a time will come when there will not be any dermatosis existing that can be called an eczema.

At the present time we still speak of the itching and resulting skin lesions from the scratching of a diabetic patient as an eczema. Carrying the analyses through the long list of recurring itchy skin affection, we will come to the conclusion that after all an eczema is nothing more than a symptom, just as a headache is a symptom in any other disease. We have itching and associated symptoms of an eczema in the case of anaphylaxis from certain foods, focal infection, and from nephritis.

In conclusion, attention is called to possibilities of the discovery of some local irritant in any and all itching skin affection of unknown origin. All dermatitis do not itch, but the vast majority have this symptom sometime during the course of the inflammation. In the face of an eruptive condition seen on the uncovered parts of the body, be this dermatitis recent or of long standing or recurrent, a search must be made for some local factor as causative. It may be very well to make a thorough physical examination for focal infections, food anaphylaxis, digestive or nutritional facts, renal disturbances, or other possible general pathology, but it must not be lost sight of that the entire trouble may be due to some simple chemical irritant that has developed a dermatitis venenata. The writer has in mind a case of dermatitis venenata of the face and hands of a furniture dealer, which had been recurring

with the most discomforting symptoms at the rate of three or more attacks a year, for the past four years. This condition had been diagnosed as an eczema by several medical men; the treatment, at best, being hardly palliative. The case when first seen by the writer presented all the marks of a dermatitis venenata, plus a general run-down nervous system from loss of sleep and the discomforts of the inflamed, irritated, itching skin. A simple calamine oxide of zinc lotion, supplemented with a boric acid ointment and a vacation from the furniture store, produced perfect results in ten days. A return to the business a few weeks hence was followed by a recurrence of the dermatitis.

This man eventually had to give up his work for some other occupation. In the preceding case cited, re the furniture man, unquestionably the exciting irritant was from certain varnishes or stains used in the manufacture of furniture; the skin of the patient had become hypersensitive to the least contact with the irritant.

In the treatment of any acute inflammation of the skin, bland soothing applications are in order, for the treatment of rhus poisoning, ointments or any oily preparation are not indicated in the early stage of the inflammation. A vigorous soap bath is of value at the beginning of the dermatitis, followed by the free use of alcohol. Calamine oxide of zinc lotion, as for example, is very serviceable for the itching in the desquamating stage.

Phenol, 40 to 80 grains.

Boric acid, 40 grains.

Pulverized prepared calamine, Pulverized zinc oxide.

U. S. P. aa drams 4.

Glycerine, drams 2.

Lime aqua, rose aqua, aa qs. ounces 4.

This same lotion is of value in any dermatitis, the official *lotio niger*, "black wash," i. e., calomel and lime water, is very valuable; phenol 2 to 4 per cent may be added for the antipruritic effect. Another good lotion for dermatitis venenata of plant origin is 2 to 4 per cent aluminum acetate in equal parts of alcohol and rose water. Sometimes a saturated boric acid solution applied ice-cold will give the most relief from the itching and burning in the erythematous stage of a dermatitis.

Simple cold cream and boric acid ointment, with the addition in some cases of 2 per cent phenol, will suffice for the local treatment in der-

matitis venenata from the use of sulphur, tar and other irritating chemicals.

Ultra-violet rays from the Alpine or similar light is valuable, will lessen the vesiculation and control the itching. The same, to a less degree, may be said of the violet ray from the therapeutic light.

Generally speaking, the removal of the cause of the dermatitis and the application of mild soothing applications of either lotions or ointments will cure the trouble, but at times nerve sedatives must be given to quiet the sufferer. Veronal or bromides for a few doses will suffice. This, with a few days quiet, with light diet and good elimination, will be of service.

IMPORTANCE OF BRONCHOSCOPY.

WM. JEROME KNAUER, M. D.,
Jacksonville, Fla.

Bronchoscopy, although new, is older than many of our modern doctors imagine and is now aptly proven to be beyond an experimental stage, although the author expects much in its development in the on-coming years. To Killian the title "Father of Bronchoscopy" has been given, for in 1897 he removed a foreign body from a Bronchus. To such men as Von Schrotter, Piniazek, Lynch, Yankauer, Mosher, and Jackson are due real credit for the advances made in Bronchoscopy, and especially to Jackson, for practically his life has been spent in the perfection of his instruments and technique which have certainly brought the field forward.

In almost any medical magazine of today one can usually find an account of the removal of a foreign body from the trachea or bronchi, and although the author has a number of interesting cases, he deems it useless to go into details of any case, only to say, that the procedure can be done either under local or general anesthesia with little or no danger to the patient, for they are usually up and about in twenty-four hours afterward.

The thing I wish to emphasize is the use of the Bronchoscope in the field of pulmonary diagnosis and therapy, for it seems that it is with hesitancy that the average internist is willing to send a pulmonary case to a Broncho-

scopist and I think the advances made in this line should be stressed. One only has to visit the clinics of Jackson in Philadelphia and Yankauer in New York to really see what Bronchoscopy means, especially to chronic lung conditions and neoplasms.

Benign neoplasms can be recognized and treated; radium can be brought in direct contact with a malignancy; stenosis of the trachea can be dilated; tracheal compression can at once be determined; and last but not least chronic pulmonary suppuration (under which is included lung abscess and Bronchiectasis) which has so long with few exceptions been one of Medicine's failures, is now coped with by irrigation and aspiration through the Bronchoscope. All over the country 10% to 12% clinical cures are reported of chronic lung suppuration and all cases treated show an improvement. This to me is certainly sufficient to warrant an investigation of every obstinate lung case with the Bronchoscope.

CONCLUSIONS.

(1) That Bronchoscopy although new is older than we suppose.

(2) That one may enter the trachea and bronchi under local or general anesthesia with little or no danger to the patient.

(3) That in obscure lung pathology, a Bronchoscopic examination should be done.

(4) That the most successful treatment of chronic lung suppuration is through the Bronchoscope.

PROPAGANDA FOR REFORM.

THE MENACE OF "MOONSHINE" WHISKY.—The untoward results of overindulgence in whisky have usually been ascribed to its alcoholic content, although now and then ill-defined "by-products" or fermentation present in the distillate have been charged with a toxicity out of all proportion to the quantities ordinarily present. The indefinite "fusel oil" and furfurol were often designated as the pernicious ingredients. In properly made and suitably aged whiskies, such constituents could at most play a minor part in the intoxication produced. While alcoholism is less prevalent today than it was a few years ago,

its attendant and after effects on its victims are more serious. The impression is broadcast that this is due to the "moonshine" liquor which is being distributed. The danger from the presence of methyl alcohol in "moonshine" whisky is well-known. Its presence is explained by the use of denatured alcohol (which may contain methyl alcohol) in the preparation of "moonshine" whisky. However, the investigation of the federal authorities indicate that ordinarily methyl alcohol is not the pernicious constituent of illicit whisky, but instead the product has been found often to contain a high proportion of acetaldehyde. The "ranker" the liquor, the higher the aldehyd content. (Jour. A. M. A., Nov. 10, 1923, p. 1611.)

THE COMPOSITION OF SOME COMPLEXION CLAYS.—Next to nostrums sold for the alleged rejuvenation of the male, the most popular form of contemporary charlantly lies in the exploitation of alleged beautifiers for the female. During the last year or two the cosmetic market has been glutted with a veritable avalanche of so-called complexion clays and face packs. The A. M. A. Chemical Laboratory has analysed the following preparations of this class: "Terra-derma-lax," "Boncilla," "Domino Complexion Clay," "Mineralava," "Ryerson's Forty Minute Beauty Clay." The laboratory reports that each of the preparations was a bluish mass of the consistency of soft putty and resembled a mixture of clay and water. With one exception, no substance other than clay, water and perfume was found in the preparations. Domino Complexion Clay contained about five per cent of glycerin and about 0.2 per cent of a salicylate, probably sodium salicylate. The examination indicates that the clays analysed are not high-grade products, nor carefully purified before being used. (Jour. A. M. A., Nov. 10, 1923, p. 1624.)

PREGL'S SOLUTION.—It has been stated that Pregl's (isotonic) iodine solution is probably prepared by treating a solution of sodium carbonate with finely powdered iodine. When the iodine has dissolved, sodium chloride is added and the solution diluted to a definite volume. The product is stated to contain sodium ions, free iodine, iodide ions, hypiodite and iodate ions—this

in addition to the carbonate and chlorid. A proprietary brand of this solution is sold in Germany as "Presiod." All favorable reports of the therapeutic use of Pregl's solution have had their genesis from apparently biased sources. (Jour. A. M. A., Nov. 10, 1923, p. 1628.)

IRIDINOL.—The Council on Pharmacy and Chemistry reports that about fifteen years ago "Iridium (Medicinal)" was put on the market by the Platinum Co. of America, and the same company manufactured "Iridinol" which was marketed by the P. H. Potter Chemical Co. (now P. H. Potter and Sons, Inc.), New York. Both products were, at that time, claimed to contain iridium and were marketed for a high price with grossly misleading claims for the efficiency of iridium as a therapeutic agent. Iridium (Medicinal) seems to have been abandoned, but Iridinol, advertised by P. H. Potter and Sons, Inc., as an "ethical preparation" continues to be sold. In the earliest advertising Iridinol was claimed to be a "nontoxic preparation of iridium." At that time the A. M. A. Chemical Laboratory was unable to detect the presence of iridium, and it was concluded that no very large amounts of iridium could have been present. Regardless of the presence or absence of iridium, there is not the slightest evidence for the therapeutic value of this metal in the conditions for which it is recommended by the exploiters of Iridinol. In the present advertising for Iridinol no definite claim is made for the presence of iridium. Instead the agents merely imply its presence. Iridinol is recommended by the exploiters in anemia, rheumatism, specific blood diseases, diseases of the nose and throat, of stomach organs, liver and kidneys, of the nervous system, diseases of children and as a systematic alternative. In view of the long-continued activities of P. H. Potter and Sons, Inc., for the use of Iridinol, the Council authorized publication of a report for the information of physicians who may be importuned to use it. (Jour. A. M. A., Nov. 24, 1923, p. 1807.)

WHOOPING COUGH VACCINE.—In a series of articles on biologic therapy prepared under the

auspices of the Council on Pharmacy and Chemistry, W. C. Davison (The Journal, Jan. 22, 1921, p. 242) concluded a review of the use of pertussis bacillus vaccine thus: "In summing up the prolific and somewhat contradictory literature on this subject, it may be concluded that injections of Bordet-Gengou bacillus vaccines may have a slight though unreliable prophylactic effect, and that therapeutic inoculations are of practically no value. Further experiments are necessary to raise this procedure from the limbo of non-specific therapy." The Council on Pharmacy and Chemistry has accepted pertussis bacillus vaccine for New and Nonofficial Remedies, but states in regard to the usefulness of the product: "The evidence indicating that it is of value for either prevention or treatment is very questionable and the reports are conflicting." (Jour. A. M. A., Nov. 24, 1923, p. 1809.)

THE ACTION OF ARSENICALS IN THE BODY.—Voegtlin and his associates in the Hygienic Laboratory of the U. S. Public Health Service have observed that certain compounds containing sulphur groups in the SH form are able to counteract the toxic effects produced by arsenoxid on trypanosomes and a representative mammal. They advance the theory that arsenic in certain trivalent forms is a specified poison for the SH group in the trypanosome organism, and that arsenic causes death of the cells by interfering with the oxidative processes. Voegtlin and his associates concluded that the failures reported in the treatment of the later stages of syphilis are due to the fact that arsphenamin, neoarsphenamin and silver arsphenamin lack the essential penetrated power of the infected tissues, and for this reason, they do not reach the last parasites in sufficient amounts to cause their death. In the effort to secure a more complete sterilization of syphilitic patients in the more advanced stages of the disease, sulpharsphenamin, typarsamid, and 3-amino 4-oxyphenol arsonic acid are suggested for trial as remedies of superior penetrative power. (Jour. A. M. A., October 27, 1923, p. 1442.)

The Journal of the Florida Medical Association

Owned and published by the Florida Medical Association.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of Congress of October 3, 1917; authorized October 16, 1918.

Published monthly at St. Augustine and Jacksonville. Price \$3.00 per year; 30 cents per single number.

Contributions for publication in this journal, whether scientific papers or reports of County Secretaries, should be typewritten.

Address Journal of the Florida Medical Association, St. Augustine, Florida, or 201-202 St. James Building, Jacksonville, Fla.

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TRAUMATIC NEUROSES.

Definitions of the term traumatic neurosis always contain the condition that organic lesions are absent. Nevertheless, ever since 1866, when Erichsen published his book "On Railway and Other Injuries of the Nervous System," opinion as to the nature of these disorders has been divided into two schools, emotional and commotional. Charcot and many others demonstrated that, in the great majority of cases at least, the symptoms are due to the mental attitude of the patient toward the whole situation in which he finds himself; the trauma is only the occasion or excuse for escaping from the situation, and the disorder is primarily emotional. The other school, in which Oppenheim was a prominent leader, maintains that, while many cases are emotional in origin, others, in spite of the absence of evidences of gross injury, must have some structural lesion, probably minute and yet unrecognized. Great impetus was given to this controversy during the war. Mott, in England, examined the nervous tissues from men who had died instantly from, or soon after exposure to a shell explosion without evidence of gross bodily injury, and found multiple minute hemorrhages scattered through the nervous system, together with changes in the staining properties of the cells, especially of the Purkinje cells in the cerebellum. For a time this led to the suspicion that "shell shock" was a definite morbid entity. But the observation of cases with identical symptoms in persons who had not been subjected to the effects of high explosives or of trauma, together with the results obtained from clinical studies and from psychotherapy, gradually dispelled this view and led to the general acceptance of the emotional origin of the war neuroses. Oppenheim, however, still maintained his position, and evidence has gradually accumulated that certain post-traumatic syndromes, especially vasomotor and trophic disturbances, are persistent and quite intractable to psychotherapy.

Experimental and histologic studies have hitherto failed to discover any structural changes such as those hypothesized by Oppenheim. Schmaus, it is true, produced experimentally areas of progressive degeneration of the myelin sheaths in the spinal cords of animals by severe blows that produced no gross lesions. Such areas of "softening," however, could hardly occur in man without objective clinical signs that would at

once exclude the case from the category of neuroses. Recently, Invar* has succeeded in producing minute physical alterations in nerve cells that, as he suggests, may have a direct bearing on this problem. By highspeed, prolonged centrifugation of the brains of animals immediately after removal from the body or while still within the recently decapitated head, the nucleolus is thrown to the distal end of the nucleus, the chromatophil substances are displaced distad, and the neurofibrils are loosened from the cell membrane and may collect in a mass in the center of the cell.

Ingvar suggests that the effects of centrifugal force resemble those of a blow applied suddenly when the head is free to move. The varying density of the different cell constituents results in variations in their relative displacement and thus causes severe damage to the cell. Apart from the great interest of these observations for studies of the living cell structure, a type of physical alteration is presented such as has been sought to explain the symptoms of commotion. In interpreting the observations for this purpose, however, it must be remembered that the centrifugal force used was steady, intense and prolonged. It may be questioned whether the sudden and momentary displacement from a blow to the head is comparable. Even should the comparability be granted, this will in no wise alter the interpretation that must continue to be placed on the vast majority of traumatic neuroses. It seems logical to conclude that none but the most severe head displacements could cause such physical distortions and that the clinical symptoms produced would ensue immediately on the receipt of the injury. The problem is of great social and medicolegal interest, and the greatest caution must be observed before accepting conclusions that would materially affect both prognosis and treatment.—*Jour. A. M. A.*

*Ingvar, Sven: Centrifugation of the Nervous System—A Method for Neurocytologic Study, *Arch. Neurol. & Psychiat.* 10:267 (Sept.) 1923.

THE STATUS OF BLOOD TRANSFUSION

Novel procedures in medical practice find application so promptly in these days that the scientific progress that they represent is all too often soon forgotten. There is another aspect to the employment of new methods and new drugs that cannot always be so easily dismissed. Few innovations have been so thoroughly studied or so

satisfactorily standardized and controlled at the time of their introduction into practical medicine as to render them perfect or even fool-proof in the hands of the uncritical practitioner. Consequently, the newest acquisitions to the healing art may sometimes become potential menaces until their limitations have been made clear. The use of the roentgen rays in the period following their discovery was attended by many serious accidents. New chemical compounds that give great promise of unusual potencies are sometimes found to have limitations in their usefulness represented by unexpected idiosyncrasy in patients, or occasional "side reactions" that limit their usefulness. It is largely for this reason that the "ideal" antiseptic, laxative, anesthetic or analgesic remains to be discovered. Only a survey over a longer experience enables the clinician to balance advantages against disadvantages and thus learn the method of choice in a given emergency.

Something of this sort is now encountered in the consideration of blood transfusion, a procedure that belongs to the newer triumphs of medicine. Nothing seems to surpass the efficacy of blood in replacing loss of the circulating medium of the body. A physiologist established a standard hemorrhage in dogs by bleeding the animals systematically until the blood pressure was 28 mm.: a state in which the dog was about as likely to live as it was to die. He then administered sodium citrate solution, and the dogs died in every instance. He gave saline solution intravenously, but, after a temporary improvement, the mortality was increased, and, after injection of acacia solution, much the same result was observed. When compatible whole blood was given, all animals recovered. Clinical experience with man practically substitutes this experimental finding.

Transfusion in man no longer is primarily a problem of blood vessel surgery, as it was fifteen years ago. The indirect method of transferring blood from one person to another has come into deserved vogue. A surgeon has remarked that the practice of entering the vessels with needles instead of using the scalpel has removed much of the danger of infection and injury to both the donor and the recipient. When blood vessel surgery was resorted to, the number of times an individual could give or receive blood was limited. Aside from the difficulties of instrumental technique, two outstanding factors have interfered with

universal success: first, the tendency of the blood to clot rapidly, and second, the hemolysis produced because of the incompatibility of bloods. The latter difficulty must be met at present by special care in the choice of the donor of the blood. The serologic aspects of transfusion have been studied assiduously in recent years after the discovery of the unlike agglutinating reactions of the bloods of different persons. Blood incompatibilities between donor and recipient can now be largely avoided. The "typing" of serums has become well standardized so that professional or semiprofessional donors can be satisfactorily "listed" for prompt use. An hour's preparation or less may then suffice for an emergency transfusion.

The problem of clotting has not been so satisfactorily solved. The citrate method has, it is true, had large success, and has until recently been the procedure of choice. Unfortunately, the coagulation of blood cannot be retarded by chemical agents without alteration of some of its biochemical and biologic properties. For example, sodium citrate leads to destruction of the blood platelets, which apparently play an important part in the coagulation of the blood. The hemostatic properties of the circulation thus become impaired. The added chemical also develops anti-complementary properties in the plasma, and reduces the phagocytic and opsonic powers of the blood. These facts would naturally argue against the use of the citrate method in the general infection when a resistance action is sought. The corpuscles are said to become more friable—a result particularly undesirable in combating certain types of anemia. There are other occasional systemic "reactions," varying from slight malaise to severe chills and febrile symptoms, that may give the operator considerable concern.

Much effort is being expended to learn how to avert or combat such untoward phenomena. This has led to improvement in the transfusion of whole blood without the use of an added anti-coagulant. The procedure has recently been enthusiastically lauded by Brines,¹ as the result of his experience. The reactions following the use of unmodified blood are said to be fewer and milder than those following the citrate method. Brines remarks that while the latter should not be abandoned, the whole blood method should, whenever possible, be substituted for it; however, there is never a time when citrated blood is as good as whole blood.

The indications for transfusion have become so varied and numerous, and its usefulness so gratifying that it seems worth while to remind our readers of how much this helpful procedure really may mean to a patient. As Brines has succinctly stated the effects:

"Transfusion corrects disturbed circulatory balance; provides increased oxygen transportation to the tissues; increases, to a greater extent than do lactates, calcium, salts or any other substances, the coagulability of the blood, and tides the patient over a critical period, until his blood-forming centers can take up their burden or he acquires the proper resistance. It combats infection by increasing the general resistance and by the bactericidal action of the whole blood. It restores the bulk of the blood, but more especially the red corpuscles; and it is important to note that young erythrocytes are better oxygen carriers than old ones."—*Jour. A. M. A.*

1. Brines, O. A.: *The Transfusion of Unmodified Blood*, Arch. Surg. 7:306 (Sept.) 1923.

THE MENACE OF "MOONSHINE" WHISKY.

In the days before the passage of the Volstead Act, the query, "What is whisky?" rarely awakened serious reflections. According to the current definition, the term whisky is applied to distilled spirit made from grain, colored and flavored by storage in charred barrels or by addition of caramel and suitable flavor. It usually contains from 40 to 50 per cent of alcohol. The untoward results of overindulgence in a beverage of this description have usually been ascribed to its alcoholic content, although now and then ill defined "by-products" of fermentation present in the distillate have been charged with a toxicity out of all proportion to the quantities ordinarily present. In protesting the innocence of alcohol, the defenders were wont to point to the indefinite "fusel oil" or to furfural as the pernicious ingredient—usually without convincing evidence. In properly made and suitably aged whiskies, such constituents could at most play only a minor part in the intoxications produced. All of the carefully considered incriminations pointed to alcohol itself as the harmful or intoxicating agent.

The present illicit liquor traffic is a menace to health, and worthy of consideration. While alcoholism is today less prevalent than it was a

few years ago, its attendant and after effects on its victims are more serious. The impression is broadcast that this result is due to the "moonshine" liquor which has found a distribution that was practically impossible so long as a legitimately made product was readily procurable. There can be no question about the danger of methyl alcohol, or methanol, which has taken a large toll of disasters in the form of deaths or blindness in recent years, usually through sheer ignorance rather than malicious or murderous intent on the part of the dispenser. The ever present menace through the machinations of the unscrupulous will be appreciated when it is realized that many of the denatured alcohols contain a varying percentage of methyl alcohol ranging from 2 to 10. Attempts to "rectify" these by redistillation for beverage purposes are not likely to remove the danger in the illicit distillate.

It is not against such obvious contaminations that the impeachment of "moonshine" whisky is directed. Analyses made by the investigators on the numerous samples secured in connection with raids on "moonshine" sugar, grain or fruit distilleries have usually shown a high content of acetaldehyd. The "ranker" the liquor, the higher the aldehyd content. The reason for this has been set forth by government chemists,* who have pointed out that the impossibility of fermentation control by the moonshiner results in a considerable oxidation of the ethyl alcohol into acetaldehyd and even acetic acid. Whereas, in an earlier chemical study of whiskies in this country by Crampton and Tolman,† the average aldehyd content for legitimately made new products was 3.9 parts per hundred thousand, the modern "moonshine" may contain as much as 100 parts. The content of fusel oil is not essentially different in the whiskies of varied origins.

However, there is considerable agreement on the opinion that the peculiarly harmful effects of new whisky are not due to its fusel oil or its higher content of alcohol. The aldehyd, on the other hand, has long been an object of criticism. As whisky ages there is presumably a polymerization of aldehyds which decreases the toxicity. But "moonshine" cannot wait long to reach its prey. Without care to eliminate the first running of the distillation, with its abundance of acetaldehyd, and the last run or tails, richer in fusel oil, efforts at refinement by fractionation and redistillation are minimized. Little wonder, then, if Doran and Beyer present a serious indictment

against the simple pot still and the eagerness for more profits in not discarding heads and tails. These chemists remind us that a large element of the present drinking public, alarmed by the recorded and published effects of drinking methanol mixtures, is disposed to resort to the liquor of seemingly known and recent origin under the impression that, being locally or home-made, it is at least safe and pure. The results of many thousands of analyses of this character of liquors show that this may be a fallacy. The evident stupefying or knockout effects of this liquor, in addition to the ethyl alcohol effect, point to the same conclusion.—*Jour. A. M. A.*

*Doran, J. M., and Beyer, G. F.: Character of Moonshine Liquor, *Am. J. Pub. Health*, 13:331 (Oct.) 1923.

†Crampton and Tolman: *J. Am. Chem. Soc.* 30:98, 1908.

REVIEWS FROM CURRENT LITERATURE.

MALIGNANT LYMPHOMA (Hodgkins Disease).
Whitaker, Lester R.: *Archives of Internal Medicines*, October 15, 1923.

This investigation is based on a study of the radiographic findings in the chests of forty cases examined at the Massachusetts General Hospital upon seven of which autopsies were made. It is pointed out that Hodgkins disease is often confused with other conditions, especially tuberculosis, and for this reason the patient is not given the benefit of roentgen ray therapy. A review of the literature brings out the fact that pathologists do not agree as to the differentiation between Hodgkins disease and lymphosarcoma, some holding that they are different pathological entities, while others believe that lymphosarcoma is only a rapidly progressive type of Hodgkins. The term malignant lymphoma has been adopted by many pathologists and appears to cover both conditions; certainly the two cannot be differentiated radiographically. The radiographic evidence depends upon the presence of masses of enlarged lymphatic glands. These lobulated masses can be differentiated in a large percentage of cases from other mediastinal growths.

Wessler and Green, in a radiographic study of twenty-five cases, divide the findings into four groups:

First. Mediastinal tumors, which show masses extending from the mediastinum into the lung, with clean-cut lobulated borders.

Second. The infiltrating type, the outline of which is irregular and the border is less definite,

the infiltration extending along the bronchial tree.

Third. Isolated nodules in the lung; a very rare type, and not seen in the forty cases reviewed by the author.

Fourth. Discreet nodes at the lungroot; the condition must be differentiated from aneurysm, metastatic sarcoma and carcinoma, primary carcinoma, enlarged hilar shadow, due to chronic inflammation, and tuberculosis.

One of the most useful methods of diagnosis is the roentgen ray therapeutic test, a rapid reduction will occur in one or two treatments in malignant lymphoma.

The author's conclusion in part is as follows:

The roentgen ray is a feasible measure to use as an aid in the diagnosis of Hodgkins disease when the inthoracic nodes are involved and the radiographic appearance is fairly characteristic.

Too, in rare cases, the therapeutic test may be used when biopsy is not possible.

DYNAMIC ILEUS AND ITS CAUSATIVE FACTORS.

Moore, F. D., *Surgery, Gynecology, and Obstetrics*. Volume XXXVII, No. 3. 1923.

There is considerable confusion in the terminology of acute ileus, aside from the strictly mechanical forms of obstruction. The best acceptance, however, is that of dynamic ileus as including all those forms of acute intestinal obstruction which are non-mechanical and which are due to some abnormality, either excessive or deficient, in the contractile power of the intestinal musculature. This abnormality may result in either the spastic or the flaccid type of paralysis.

There are many causes given to account for the occurrence of acute dynamic ileus, including the widest possible range of pathological condition. All of these, however, are in themselves only predisposing causes, and all must, of necessity, have back of them some really fundamental factor as the basic etiology.

The most widely accepted, and at present, the most correct theory advanced as to the nature of this fundamental factor, is a disturbance in the innervation of the bowel wall, whether this disturbance takes place in the plexuses in the intestinal wall, those of Meissner and Auerbach, in its sympathetic ganglia, or in the cord itself, is not essential, and undoubtedly varies with the particular causative factor in each case.

The direct cause of death is generally con-

ceded, in dynamic ileus, as well as in mechanical obstruction, to be absorption into the body of the toxic products of disintegrated proteins formed within the obstructed loop of bowel, together with dehydration of the body tissues.

The treatment consists, first, in combatting the toxicity and dehydration, and, secondly, in relieving the obstruction by drainage of the obstructed bowel and removal of its toxic contents.

J. S. MC.

ACUTE PERFORATION OF DUODENAL ULCER.

Shaw, H. K., and Vale, C. F.: *Annals of Surgery*, Vol. LXXVIII, No. 3. 1923.

Perforation of the duodenum, whether simple or as a sequence to chronic ulcer, is a condition uniformly susceptible to cure by immediately instituted surgical means.

Two types of duodenum, whether simple or as a sequence to the chronic variety, and the small, soft recent type. A positive history of previous ulcer will aid in diagnosing the former, while the findings of acute rupture are usually, not always, the inaugurating symptoms in the latter.

The early symptoms of rupture are fairly uniform and are the typical findings in upper intra-abdominal hollow viscus perforation. However, pain, rigidity, and restlessness may occasionally be more intermittent factors than are hard ulcers. History alone may indicate the perforating organ or may be of doubtful value. A differential diagnosis is not of practical value, for the treatment is the same.

Immediate closure of the perforation is the prime essential in surgical treatment. The desirability of additional procedures depends on the local findings and on the general condition of the patient at the time. Excision of the ulcer, modified pyloroplasty, gastro-enterostomy and their combination—each has its indication. More extensive surgery is rarely advisable. Our results having been equally satisfactory with the various methods used, we state no preference, preferring to individualize.

Careful attention to diet is of great importance early as well as long after the operation.

Preeminently, the immediate results depend less on the type of surgical therapy employed than on the time interval allowed to elapse between the perforation of the ulcer and its proper surgical treatment.

J. S. MC.

WELL BORN.

The U. S. Children's Bureau has just produced a two-reel film "Well Born," which it is believed will meet the need, felt by all interested in the health of mothers and babies, for a simple and convincing presentation of the question of prenatal care.

The picture tells its story in a way which will interest and attract the average mother, whether she lives in a city apartment or on a farm. There is neither preaching nor scolding. The observer sees the experiences of two young couples, Sue and George, Mary and Dick, in learning first, the need for special precautions on the part of the mother during the period before the baby is born and second, just what those special precautions are. Each prospective mother happily puts into practice the things she learns through the maternity clinic, the family doctor, the county nurse.

Shown in its preliminary form at a conference of directors of State divisions of child hygiene or child health at Washington, the picture was received with general approval. Such criticisms as were made were embodied in the revision and editing which took place before the film was finally released with the Bureau's approval.

The picture takes a little less than half an hour in showing. The acting is intelligent and sympathetic and the photography is unusually good.

"Well Born" will be lent by the Children's Bureau to responsible persons and agencies with the understanding that the borrower defrays express charges back and forth, employs a competent motion-picture operator, and guarantees its safe keeping. Those who desire to purchase the film may also apply to the Bureau for information and prices.

The synopsis of the picture follows:

The scene opens in the yard of a comfortable country home. Sue Biddle wearily lifts a pail of water from the well and prepares to carry it into the house. For the second time, Sue is an expectant mother. Although her first baby died because she had not known how to care for herself during the prenatal period, she is now no better informed on the principles of prenatal hygiene.

Sue's only confidante is her sister-in-law, Mary Bedford, herself a young married woman and living in a distant city. To Mary Sue writes of her conditions. In discussing Sue's need of help and guidance with her husband, Dick, Mary

reveals the fact that she also is a prospective mother.

Although Mary is disposed to laugh at his anxiety, Dick realizes the importance of placing his wife under the care of a physician at once. A copy of the Children's Bureau leaflet "Minimum Standards of Prenatal Care" convinces her and she consents to visit the city's maternity center. Here she is given a thorough physical examination. Heart, lungs, and blood pressure are tested; throat and teeth are inspected; pelvic measurements taken; and a test is made to determine whether or not the kidneys are properly performing their important work of elimination. A suitable diet is outlined and Mrs. Bedford is told that fresh air and exercise, rest and sleep all in their proper proportions will help to build her baby's health and to conserve her own. As a final injunction, the doctor at the maternity center urges upon the Bedfords the importance of at least monthly consultations with their own physician.

While practicing the advice she has received, Mary Bedford passes it on through letters to Sue in her country home. Sue is sadly in need of help and encouragement. Neighbors frighten her with "old wives' tales" and her husband fails to appreciate the necessity for unusual precautions at this time. "My mother had eight children and never even had a doctor," says he. "What is the matter with women nowadays?"

Urged by Mary, however, Sue insists on visiting the village doctor and dentist. The gift of a maternity dress from Mary helps to make her comfortable and attractive and a tactful letter from Dick arouses George to the duties of prospective fathers. Bulletins from her State Board of Health, the advice of her doctor, and the county nurse whom he sends to assist her all help to set Sue's feet firmly on the road to healthy, happy motherhood.

Here the scene shifts to a hospital room in the distant city where the Bedfords live. Mary in bed and Dick bending over await the nurse who finally enters with the baby for whose welfare they have given such constant thought and care.

Six months later and we see a reunion in the country. The dramatis personæ is increased from four to six. Mary and Sue are seated on the grass, their babies in their arms. The picture radiates happiness and well-being. George Biddle

tries vainly to pose the babies while Dick stands near, camera in hand. Having won their first right—to be Well Born—these lusty youngsters begin promptly, like the rest of us, to clamor for other things.

SHEPPARD-TOWNER ACT.

Forty States are now cooperating with the Federal government, under the terms of the Sheppard-Towner maternity and infancy act, to reduce the death rate among mothers and babies throughout the United States.

The first official report of activities under this Act, through which Congress is permitted to appropriate \$1,240,000 annually for the welfare of maternity and infancy, is made public today as a part of the annual report of Grace Abbott, Chief of the Children's Bureau of the Department of Labor. Miss Abbott is also chairman of the Federal Board of Maternity and Infant Hygiene. The National administration of the maternity and infancy act is lodged in the Children's Bureau.

The only States which have not accepted the provisions of the Maternity and Infancy Act are: Vermont, Massachusetts, Rhode Island, Maine, where the Legislature passed an acceptance act which was vetoed by the governor; Louisiana and Illinois, where the Act received a substantial majority in the Senate but failed of passage in the House; Kansas, where the Act passed the Senate unanimously, but did not come to a vote in the House; and Connecticut, where the 1923 Legislature instructed the Health Department not to accept the funds available under the Act.

Extension of the Act to benefit the mothers and babies of Alaska, Hawaii, Porto Rico and the Philippines is recommended by Miss Abbott's report.

Appalling infant death rate in the island possessions of the United States "make indifference on the part of the United States impossible," Miss Abbott states. Reports of the governors of Porto Rico and Hawaii show that in Porto Rico 153 babies, and in Hawaii 120 babies, die during the first year of life, out of every 1,000 born alive. In the Philippine Islands the last census showed the rate to be 358. In contrast to these high rates is the rate of 76 for the birth registration area of the United States.

The United States has "a national obligation to render (these communities) at least the same

assistance being given the States," Miss Abbott points out.

Important investigations in child hygiene, child labor, and the care of dependent and delinquent children have been made by the Children's Bureau during the last year. The results of some of these investigations are summarized in Miss Abbott's report.

During the year the Children's Bureau cooperated with the Community Health Service of Boston in the demonstration of a habit-clinic for pre-school children. Doctor D. A. Thom of the Boston Psychopathic Hospital has been in charge of the clinic, and has prepared an analysis of the results of the experiment, which will be published by the Children's Bureau.

A survey of nutrition work being done for children of pre-school age in nine eastern and mid-western cities, and three rural communities has been made. The report of this study is being prepared.

An intensive study of the growth of young children, with special reference to rickets, to the influence of the children's diets, of the diets of nursing mothers, and of housing and sunlight, has been made in the District of Columbia, with the cooperation of the Child Welfare Society of the District. With the object of discovering methods of preventing rickets, a study in New Haven in cooperation with the medical school of Yale University is under consideration.

Investigations of rural child labor and its relations to school attendance have been made by the industrial division of the Bureau in Colorado, Connecticut, Illinois, Kentucky, Maryland, Massachusetts, Michigan, New Jersey, North Dakota, South Carolina, Texas and Virginia. These surveys have given detailed information about 11,000 rural child laborers under 16 years of age. Surveys have also been made of children in street trades in Wilkes-Barre, Pennsylvania; Columbus, Ohio; Atlanta, Georgia; and Omaha, Nebraska. Child labor inspection were also made in a number of textile mills in Georgia. These inspections show a large number of violations of the standards of employment of children laid down in the two Federal laws declared unconstitutional, and also a number of violations of the State child labor laws, in spite of the fact that State standards were considerably lower than the Federal standards.

The work of the social service division of the Bureau included investigation of mothers' pension laws, of foster-home care for dependent children, and a study of juvenile courts in ten cities.

Thirty-four new publications, charts, and leaflets were issued by the Bureau during the fiscal year 1922-23. Twenty-five publications are now in press, and 24 in preparation; 821,735 Bureau publications were distributed, an increase of 195,985 over the number distributed in the previous year, but 400,000 less than the number distributed in 1919, when the Bureau's printing fund was much larger than it has been since that time; 98,533 letters were received by the Children's Bureau during the year. These letters were mostly from parents and other individuals who wished information from the Children's Bureau about some phase of child care.

NEW AND NONOFFICIAL REMEDIES.

BUTESIN (n-butyl-para-aminobenzoate). Butesin is the normal butyl ester of 4-aminobenzoic acid. The actions and uses of butesin are similar to those of benzocaine (anesthesia), which is the ethyl ester of 4-aminobenzoic acid (see New and Nonofficial Remedies, 1923, p. 41, Anesthetics, Local, Difficultly Soluble). Butesin is used as a dusting powder, either pure or diluted. It may be used in the form of troches, ointment, suppositories or dissolved in a fatty oil. Butesin is a white, crystalline powder, odorless, tasteless, almost insoluble in water, but soluble in alcohol, chloroform, ether and in fatty oils. The Abbott Laboratories, Chicago. (Jour. A. M. A., Nov. 3, 1923, p. 1523.)

DIPHTHERIA ANTITOXIN GLOBULIN.—This product (see New and Nonofficial Remedies, 1923, p. 283) is also marketed in syringes containing 20,000 units. Cutter Laboratory, Berkeley, Calif.

GLYCERINATED VACCINE VIRUS.—This product (see New and Nonofficial Remedies, 1923, p. 293) is also marketed in packages containing one capillary tube. Cutter Laboratory, Berkeley, Calif.

GONOCOCCIC VACCINE.—A gonococcic vaccine (see New and Nonofficial Remedies, 1923, p. 304) marketed in vials of 5 c.c., each cubic centimeter containing 500 million cocci. Cutter Laboratory, Berkeley, Calif. (Jour. A. M. A., Nov. 17, 1923, p. 1693.)

AFENIL (Calcium chloride urea).—A molecular compound of calcium chloride and urea. Afenil has the actions of calcium chloride. It is claimed that when afenil solutions are administered intramuscularly or intravenously, the drug is better tolerated and less irritating than calcium chloride. It is claimed that the intravenous administration of afenil is indicated in hay fever, asthma and other diseases of the respiratory tract in anaphalactic conditions, skin rashes, urticarias and as a means of preventing severe arsphenamine reactions. Afenil is marketed in ampules containing 10 c.c. of a 10 per cent solution of afenil. E. Bilhuber, Inc., New York.

SILVER NITRATE SOLUTION (in capsules—P. D. and Co.).—An aqueous solution of silver nitrate contained in capsules composed of beeswax with an inner lining of a hard paraffin. The solution is intended for the prophylaxis of ophthalmia neonatorum in the newborn. The solution is marketed in two forms: capsules containing 6 minims of a 1 per cent solution, capsules containing 6 minims of a 2 per cent solution. Parke, Davis and Co., Detroit. (Jour. A. M. A., Nov. 24, 1923, p. 1789.)

PUBLISHER'S NOTES.

EFFICIENCY OF ARSPHENAMINES

A reliable basis for comparing the efficiency of therapeutic agents is the chemotherapeutic index, that is, the relation of the maximum tolerated dose to the minimum curative dose.

Judged by this standard, the chemotherapeutic index of D. R. L. Neoarsphenamine, which generally passes a toxicity test of 350 mgs. per kilo of body weight, or higher, (from 75 to 100% better than Government requirements) is about 58.3.

A leading syphilographer recently wrote:

"We are using D. R. L. Neoarsphenamine with great satisfaction in my clinic and at the hospital, and very rarely have any reactions that amount to anything. The therapeutic results have been extremely satisfactory. In my private practice, our results have been so good that I personally could not be persuaded to use any other product. We rarely have any patient complain of reactions, and the curative properties of the drug have been such that in secondary syphilis the first course of ten or twelve injections is invariably followed by a negative Wassermann test."

ANTITOXIN PROGRESS

Ever since Behring and Roux gave diphtheria antitoxin to a waiting world, the most progressive biological laboratories have been engaged in reducing to a minimum the inconveniences and uncertainties of antitoxin administration.

The doses given at first were too small, and yet quite large enough in volume. The manufacturers soon succeeded, however, in eliminating useless water from the serum and otherwise concentrating it. Meantime more accurate methods of assaying it were developed, the U. S. Public Health Service co-operating.

The packages, too, have been improved. The profession has for many years insisted on a syringe package, and in such a package, with the serum in contact with the rubber of the

piston, adhesion between rubber and glass has been a source of great difficulty in handling.

One by one all the practical problems encountered have been solved, and now we have an antitoxin so concentrated that it carries when fresh 40% more of the antitoxic principle than the label calls for, and yet does not make an unmanageable dose, even when a single injection of 20,000 units is to be given. Moreover, in the process of concentration excessive viscosity has been avoided, for that would interfere with rapid absorption. And the syringe packages now being offered have won the praise of the profession.

Our readers should take the time to follow what Parke, Davis & Co. have to say about "Improvement of Antitoxin" elsewhere in this issue.

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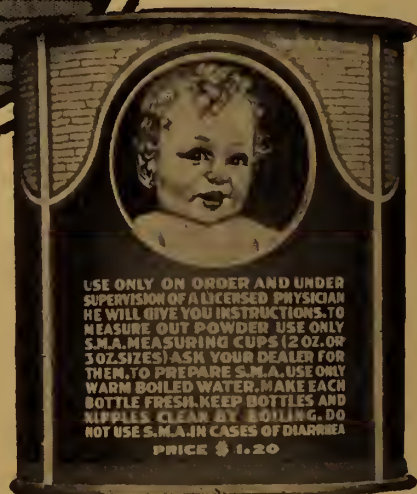
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Florida Medical Association

OWNED AND PUBLISHED BY THE FLORIDA MEDICAL ASSOCIATION

VOLUME X
No. 7

St. Augustine and Jacksonville, Fla., January, 1924

Yearly Subscription, \$3.00
Single Copy, 30c

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PUBLISHED MONTHLY

Volume X

St. Augustine and Jacksonville, Florida, January, 1924

Number 7

ORIGINAL ARTICLES

INTRAVENOUS GLUCOSE THERAPY.*

THOS. TRUELSEN, M. D.,

Tampa, Fla.

Introduction: Intravenous therapy is not an old method of medication. The boldness with which it has been pursued more recently has given some cause for alarm, and several editorial writers have warned against the promiscuous use of this method. Some intravenous therapy, however, seems to be very well established and will probably endure. Normal saline solutions used intravenously seems to have stood the test of time. Hypertonic saline solution is a latter development; and of a more recent period is the use of hypertonic glucose solution. Of this I wish to speak this evening.

Action: The one large group of seriously ill patients especially benefited by hypertonic glucose injection is the toxic group with its symptom complex of temperature, rapid and feeble pulse, hot and dry skin, dry tongue, lethargy or restlessness. Important to recognize in connection with this group of symptoms—and I want to stress is especially—is that the process of dehydration plays a very serious role, and that this process is especially potent for evil because least appreciated and consequently neglected in treatment. To recognize that the toxic symptoms are in part due to, or at least greatly aggravated by the process of dehydration, at once puts us on the alert and the liberal use of hypertonic glucose solution intravenously in an advantageous combative position. The introduction of several hundred cubic centimeters of water into the bloodstream immediately tends to correct the dehydration. By the process of absorption, or extraction of fluid from the tissues, the bloodstream again regains its normal state of isotonicity, the tissue cells are relieved and again enabled to absorb fluid and nourishment. In other words, an efficient effort has been made to supply the elements for and to inaugurate helpful

metabolic changes. It has been repeatedly demonstrated and confirmed that following an injection of glucose solution there is a temporary increase of the total of sugar in the circulation, and that the injected sugar rapidly passes out of the blood into the tissues and there undergoes chemical changes—polymerization and oxidation. During its stay in the bloodstream the blood volume rises and a state of hydremic plethora develops. This is shown by a fall in the Hb. percentage and a coincident fall in the blood-sugar percentage following an initial rise. When the last of the injected glucose passes into the tissues the extra water held in the bloodstream is to a large extent discharged into the urine, thus eliminating many toxins. This whole phenomenon differs essentially from that obtained with inorganic salt solutions because such salts pass into the tissues, but when once there are not destroyed and offer no nourishment. There is therefore the possibility of salt accumulation in the tissues with water retention. All the processes that take place in the economy after an intravenous injection of hypertonic glucose solution are not to be explained at this time, and in offering the above explanation it is not presumed that it is exhaustive or even comprehensive; it is, however, adequate for a working understanding, I think, if we bear in mind that intravenous injections of hypertonic glucose solution offer the economy urgently needed water and immediately available food, and that the hypertonicity of the solution inaugurates adsorption of waste materials and toxins, and helps to eliminate these through the kidneys.

Uses: The intravenous use of glucose solution has effected a distinct progress in therapeutics. Its usefulness is being more and more recognized and extended as is attested by the frequent references to it in the current literature. If you will bear in mind that its use supplies water and immediately available nourishment, that its hypertonicity disimpregnates the tissues of waste products and toxic substances, and that

*Read before the Hillsborough County Medical Society, November 3, 1923.

through diuresis it will eliminate toxins, you will readily conceive its usefulness in conditions such as prolonged fevers, exhaustive diarrheas, toxic states from drug poisonings, or anesthetics, or alcoholic excesses. Surgeons find it very useful both before and after operation in bad risks, to prepare patients for operation, and to tide them over in various post-operative conditions. It has been used with advantage after severe hemorrhages—in acidosis, etc. Pneumonia cases are much better taken care of with glucose injections than without.

In the toxemias of pregnancy intravenous glucose therapy has decided advantages. You all know that "there have been innumerable ingenious theories advanced to explain the origin or source of these various toxemias. It may be conceded for the time being that anyone or any combination of these theories may be involved, whether it be the idea that the toxemia is of gastro-intestinal origin, the result of disturbance in the glands of internal secretion, or of fetal origin. Certain it seems that the pathologic process of the toxemia is dependent on a carbohydrate deficiency in the maternal organism, particularly in respect to the impairment of physiologic activity of the liver when unduly depleted of glycogen—and that the liver and its functions play an important part in the patient's ability or inability to recover. Glucose solution injected intravenously serves rapidly to restore the depleted and damaged liver cells, being stored as glycogen. The liver is thus aided in its fight against the toxins of pregnancy. It must be emphasized, however, that the usual rational methods of treating these cases are not to be abandoned because glucose is offered as a therapeutic measure.

Effect: The effects of a concentrated glucose injection intravenously sometimes become apparent very soon after the injection. A rapid, feeble pulse becomes slower and stronger; a nervous, anxious and restless patient becomes more comfortable and often goes to sleep. Soon the urinary output is increased and the patient requests water and often food. The skin and tongue become moist, and the temperature is lowered. In short, a seriously ill patient has made a happy turn and now presents many hopeful features and often a state of well-being.

Not always is so great a benefit realized after one injection, nor is it necessarily lasting; success may follow only after repeated injections.

No definite rule can be given for the repetition of the injection or the number of injections required. If, however, you bear in mind that the injections are given to overcome a definite symptom group or a condition, or to maintain success already achieved, you will be readily guided in their repetition to meet the needs and response of the patient. Some acutely ill cases may require two or three injections during the twenty-four hours; others may get along with only one a day or even with less.

With chronic cases my experience is practically limited to tuberculosis. During a dispensary service all cases received one injection a week. Upon inquiry it was ascertained that the patients noticed the beneficial effects wearing off about the fourth or fifth day after injection.

The strength of the solution employed varies with different users. You will find recorded in the literature percentages varying from five to thirty, and a 50 per cent solution in comparatively small quantities is reported as used with good results in decompensated heart troubles with edema. The strength of the solution seems to be arbitrarily chosen by the different users. I have found no reasons given for a choice. A 5.1 per cent solution is isotonic with the blood stream and this strength is indicated when it is intended to replenish speedily a lost volume of blood with an artificial serum as after a severe hemorrhage. Stronger solutions furnish more nourishment; from 100 to 300 calories can be supplied with each dose without having to go through the ordinary digestive processes—storage in the liver as glycogen and reconversion into glucose again before it can be used by the tissues.

As does the strength, so does the quantity of the injected solution vary, 200 to 300 c.c. being a fair average. Children receive proportionately less. Special indications or desperate cases may demand larger doses.

Various drugs and preparations may be conveniently incorporated into the solution if deemed expedient. The possibilities of this procedure as affecting medication are almost without limit. I call your attention to bicarbonate of soda, digitalis, strychnin and quinine; also to serums such as antipneumococcic, antistreptococcic, and antitetanic. For these incorporations the glucose solution is a much more rational medium than a saline, because it is to a greater degree physiologically potent.

Reactions: Intravenous injections of glucose solutions are sometimes followed by reactions. These reactions are similar to those sometimes noted after the injection of other substances such as distilled water, physiologic sodium chlorid solution, blood, or foreign proteins. They are called protein or anaphylactoid reactions. In from a few minutes to half an hour a chill comes over the patient, accompanied by a rise in temperature of from 2 to 3 degrees, followed often by a profuse sweat, and by prostration and weakness. Usually within 24 hours these phenomena disappear. Though decidedly unpleasant to the patient no harmful results are noted; and some authors claim these reactions have a definite therapeutic value.

As stated, these reactions are called protein reactions and it has been suggested that the failure to remove all foreign matter from the solution used was responsible for them. This explanation has never been quite sufficient.

In a recent article by Williams and Swett, entitled, *Hydrogen Ion Concentration Studies*, is offered a much more satisfactory explanation, one based on an exact chemical study.¹

In attempting to understand the term hydrogen ion concentration it is necessary to remember that it is the hydrogen in a substance that is the cause of acidity, and that weak acids are weak, and strong acids are strong, just in proportion as their hydrogen is capable of being dissociated, or split off, from the molecule when the latter substance is dissolved in water. Thus H. Cl. is a strong, or very corrosive, acid because the combined hydrogen is so readily freed, or split off, or ionized, from the chlorin to enter into other combinations; whereas acetic acid is a weak acid because the incorporated hydrogen is only to a slight extent capable of being split off, or dissociated, or ionized. Now when we say a solution has a certain hydrogen ion concentration it should mean to us that it has hydrogen in weak combination, readily dissociated, or ionized, to form other combinations. The substances that form new combinations with the hydrogen, or absorb the hydrogen ions into their molecule, are called buffers because they absorb, or "soak up," so to speak, the shocks or damage that the corrosive hydrogen is capable of producing. The authors previously referred to believe there is a relationship between these so-called protein reac-

tions and the hydrogen ion concentration of the injected fluids. They advance the hypothesis that when fluids of a much higher or lower concentration than that of the blood is introduced into the circulation at a rate or in an amount in excess of the capacity of the blood to buffer or neutralize, reactions will occur. They base their theory on clinical observations and the analysis of fluids, the intravenous use of which was followed by reactions. In their study of distilled water they found that it becomes acid almost immediately after distillation, owing chiefly to the absorption of carbonic acid gas from the atmosphere, which has a high degree of penetrability. Storage conditions made very little difference, and age increased the acidity. Old stock distilled water is quite likely to be very acid, and its use in the preparation of medicines or chemicals for intravenous use is very questionable, if not dangerous.

The result of the study of the hydrogen ion concentration of normal salt solution is embodied in the following comments: "It is evident from our tests that when the common methods of making physiologic sodium chlorid solution is employed, namely, dissolving so-called chemically pure sodium chloride in stock distilled water, a highly acid solution may result which might prove harmful in clinical use. This acidity may be due to the salt, or to the distilled water, or to both. It is obvious that a salt solution which is physiologically normal for the body must not only be correct in salt content but also in hydrogen ion concentration. Physiologic sodium chlorid solution may easily be rendered safe for therapeutics by proper buffering."

Results similar to those obtained in their investigation of distilled water and of sodium chlorid solutions were obtained in their investigation of glucose solutions. Freshly prepared solutions were acid. Standing, and boiling and auto-claving, increased the acidity concentration. Only slight differences in these respects were noted in the examination of different brands of glucose. After correctly buffering or adjusting their glucose solutions, they had no more reactions.

To correctly buffer intravenous solutions it is convenient to use tablets or solutions prepared for this purpose by the Pyroelectric Instrument Company, Trenton, N. J. Buffering should be done just previous to using solutions.

¹ Williams, John R., Madeleine Swett, *Hydrogen Ion Concentration Studies*. J. A. M. A., April 8, 1922.

PREPARATION OF GLUCOSE SOLUTIONS.

To prepare a glucose solution secure from your druggist a pound bottle of Dextrose powder and dissolve in a fair quantity of hot water. Any good grade of water may be used. The resultant solution must now be filtered, perhaps twice, because at this stage all dextrose solutions contain some detritus. To the filtrate is added a sufficient quantity of water to make the percentage of glucose solution desired. The solution is now divided into glass flasks of convenient size, e.g., 250 or 300 c.c., and sterilized, either by boiling or autoclaving several times, and set aside for future use. Before using the solution must be heated to blood temperature. In emergencies a very suitable intravenous glucose solution may be prepared from Caro Corn Syrup.

THE COMPLICATIONS OF NONPENETRATING TRAUMATISM OF THE THORAX.

E. W. BITZER, M. D.,
Tampa, Fla.

The rapid increase in automobile accidents has added immensely to the frequency of thoracic trauma. It is estimated that, at the present rate for the year of 1923, one in every seventy inhabitants of the United States will have been injured or killed in this manner. When penetrating wounds are not considered, injuries due to falling or crushing are usually the etiological factors in thoracic traumatism. Often there is a complete absence of external evidence of injury.

The internal complications may be divided into two groups: the purely traumatic in origin, hemorrhage and pneumothorax, and those due to secondary infection.

Hemorrhage is the commonest complication, and is usually due to injury of an intercostal artery from a fractured rib. The parietal pleura is punctured as a rule and bleeding occurs into the pleural cavity. The visceral pleura may be punctured and a hemo-pneumothorax result. Hemorrhage from a tear in the lung rarely occurs owing to its elasticity and to collapse. Rarely the internal mammary artery may be the site of hemorrhage.

The symptoms of hemorrhage in such injuries are usually those of mild shock, pallor, sweating, faintness, rapid pulse, rapid respirations, low blood pressure and cold extremities, usually followed by fever of varying degrees, depending

upon the severity of the hemorrhage. Bloody expectoration is likely to occur when the lung is injured. Fatal hemorrhage is rare from rupture of an intercostal artery. Even in prolonged bleeding, a positive pressure is created in the pleural cavity, that stops the hemorrhage. Collapse, due to pressure on the viscera, does not occur, on account of the gradual filling of the cavity with blood.

After the initial stage, respiratory embarrassment with rapid respirations and cyanosis may be noted, where the hemorrhage is large. Separation of the blood into an upper serous portion and lower solid clot occurs. The clot usually occupies the lower posterior part of the pleural cavity.¹

Physical examination shows flatness in the base with signs of compression of the lung at the upper margin, prolongation of expiration, with a tendency to increase of voice transmission, which is more marked in some cases and may be mistaken for consolidation of the lung. A paravertebral triangle may be present. Where the hemorrhage is large, the heart and mediastinal contents are displaced to the opposite side. There is bulging of the chest and restricted movements. The physical findings may be modified by the presence of pneumothorax of varying degree.

Pneumothorax may be the only complication of thoracic traumatism. This may be produced by a fragment of broken rib puncturing the lung. It may be found occasionally, where the ribs are not fractured. A sudden violent compression may rupture the lung. Cases have been reported from violent coughing. It is probable that this condition is of more frequent occurrence than is usually supposed, and that many cases heal undiagnosed. Spontaneous healing is the rule. The lung is collapsed, and the contraction of the elastic tissue is sufficient to close the opening and healing is prompt. Occasionally, this is not the case, air continues to enter the pleural cavity, and the pneumothorax may continue for months.

The symptoms are those of shock in the beginning with pain and respiratory embarrassment. Later they may be surprisingly slight, in cases of persistent pneumothorax. In cases of long standing, respiratory embarrassment after exercise may be the only symptom.

Physical examination shows a tympanitic note on percussion. The heart is displaced to the

¹Norris and Landis: Diseases of the Chest and the Principles of Physical Diagnosis. 1920.

opposite side. There may be bulging of the thorax, and the excursion of the base is absent owing to the displacement of the diaphragm downward. Distant or absent voice and breathing sounds are noted, and a positive coin test. Occasionally, air may be heard entering the pleural cavity through the rent in the lung.

Cases presenting a secondary rise of temperature or a continuation of the initial temperature are usually those in which infection has occurred. Such manifestations may be either acute, subacute or chronic in type. Acute symptoms, where hemorrhage has occurred, are suggestive of empyema. It is possible that abscess of the lung may occur but it is rare. Spontaneous drainage may occur through the bronchi or chest wall, or the virulence of the infection may subside, with encapsulation, sterilization, and gradual absorption. The latter is usually associated with extensive scar tissue formation, which is likely to seriously curtail the functional capacity of the affected lung.

The symptoms are briefly, cough, scant expectoration, pain, fever, rapid pulse and respiration and leucocytosis.

Physical examination does not, as a rule, disclose anything distinctive. The aspirating needle and Roentgen examination are valuable in the location of pus, but at times both fail.

In other cases following hemorrhage, the symptoms may be mild, but with unmistakable evidence of pleural infection, often distant from the base. A satisfactory though slow recovery occurs. This is doubtless due to the type of infecting agent or to the resistance of the patient.

REPORT OF CASES.

CASE 1.—February 3, 1923. Male, 43 years of age.

Family History: Negative.

Past History: Has had typhoid, scarlet fever, tonsillitis, nervous breakdown ten years ago, leucic infection fourteen years ago. He had a negative Wassermann three years ago. Habits are good.

Present Illness: In June, 1922, was in an automobile accident. Another occupant weighing 200 pounds fell on his chest. Following this he has been short of breath to a marked degree after exercise. He has not been able to walk more than two blocks without discomfort. There is no cough. Since October, 1922, has had epigastric discomfort two hours after eating.

Examination showed a well-nourished in-

dividual, healthy in appearance, weighing 143 pounds. Muscular development fair, posture erect, teeth, gums, throat, and thyroid are negative. Pupils are equal and active to light. Knee jerks are equal and active. Temperature is 98.6, pulse 72 and normal rhythm. Respiration 20. Blood pressure 120/80. Hemo. 68 per cent. Wassermann and urine are negative.

The abdomen is tender at Morris' and McBurney's points and in the liver region. The heart and mediastinal structures are displaced to the right. The heart sounds are normal. The left chest is tympanitic on percussion. The movement is limited, and the excursion of the left base is very slight. Voice and breathing sounds are absent except in the axillary region, where a distant blowing, amphoric in type, is heard. Voice sounds are louder in this region, which doubtless corresponds to the tear in the lung. The coin test is positive.

A diagnosis of pneumothorax was made and confirmed by roentgenograms.

CASE No. 2.—Male, age 15, white.

Past History: Unimportant. February 8, 1923, was injured by a fall, which was followed by pain in the left abdomen, chest and shoulder. He continued to complain of pain with an occasional day in which the temperature was elevated. On March 7th he had a chill followed by fever. On March 24th was up with temperature of 102, pulse 120, respiration 30, and complaining of severe abdominal pain. He was admitted to the Bayside Hospital March 28, 1923.

General appearance that of thin youth, seriously ill. He complains of severe pain in left abdomen and chest and at times in the left shoulder. Chest examination showed flatness on percussion in an area corresponding to the lower lobe of the left lung, with absent voice and breathing sounds. Along the upper margin of the flatness in the back, the voice and breathing sounds were increased suggesting compression of the lung. A paravertebral triangle was present.

Conclusions: Hemorrhage following injury, with infection and probably empyema. An exploratory puncture was suggested.

March 28, 1923, white count, 18500, Polys. 85 per cent. The urine showed a trace of albumin and a few granular casts. On March 30th, two punctures were made between the 9th and 10th ribs without success. On April 16th, Hemo. 59 degrees, R. C. 3,408,000, W. C. 20,300, Polys. 77 per cent. On April 21st, another puncture

was made in the mid-axillary line. A small amount of sero-sanguineous fluid was withdrawn, which was negative for T. B. and showed no growth on culture. The temperature showed a daily rise of from 101 F. to 103 F. between March 28th and April 25th, the pulse varied from 90 to 150 and the respiration from 20 to 40. On April 20th, he began almost continuously to expectorate blood-streaked purulent material. This continued, gradually decreasing in amount until May 14th. Following the onset of expectoration, the patient improved gradually, and was discharged cured May 25th.

The final diagnosis was, hemothorax, localized empyema with rupture into the bronchi.

CASE NO. 3.—Male, age 45, family history negative, past history—pleurisy of right chest, 12 years ago.

Present Illness began August 1, 1923, following an automobile accident. The patient in jumping from a car, going at high speed, fell on his left side, injuring the arm and breaking four ribs in the lower left thorax in the axillary region. Spent 18 days in a hospital, with a diagnosis of pneumonia immediately following the accident. On September 4, 1923, the only complaint was pain in lower left chest, both sides, more marked in the back, and worse on the left side, aggravated by deep breathing and recumbent position. He has a slight cough and mucopurulent expectoration. The left shoulder is stiff and he is unable to use the left arm and hand in a normal manner.

Examination showed a well-nourished individual, normal in appearance, weighing 190 pounds. The temperature is 98.8, pulse 84, respiration 26, blood pressure 135/90. The sputum is negative for T. B.

The right apex is dull on percussion, with distant voice and breathing sounds. There are no rales in this region. There is an increase in the area of dullness on both sides of the sternum, with numerous rales in the right root region. The left base, posteriorly, is flat to a point one inch above the angle of the scapula, extending around the chest to the fifth rib in front. There are a few moist rales in the lower back on deep breathing. Distant broncho-vesicular breathing and increased voice sounds are heard at the upper margin of flatness in the back, suggesting lung compression. The physical findings were confirmed by roentgenograms.

It seems probable that there has been a hemorrhage into the left pleural cavity, with the re-

mains of the clot still present in the base. It is possible that there was pneumonia following the injury. However, this is a rare complication and seems unlikely. It is likewise possible that a sterile, localized empyema may be present that is undergoing slow absorption. It is more probable, however, that a low-grade infection is present, producing an apical and mediastinal pleurisy, with a blood clot and pleural involvement at the left base.

CONCLUSIONS.

First. The complications of thoracic injuries, of interest to the internist are Hemothorax and Pneumothorax.

Second. Infection is limited to the pleural cavity, as a rule, and may be of any degree of severity, purulent or otherwise.

INSULIN IN THE TREATMENT OF DIABETES MELLITUS.

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When Dr. F. G. Banting and his co-workers in Toronto announced that the extract which they had obtained from the islets of pancreatic tissue had been used successfully in the treatment of seven patients, a new hope was held out to the host of diabetic sufferers and new impetus given to the study of this disease. Subsequent work has borne out the claims of these investigators and bears witness to their epoch-making achievement.

Insulin is not a cure for diabetes. We must keep clearly in mind the fact that the specific hormone elaborated by the islet tissue of the pancreas is necessary for the combustion and utilization of carbohydrate foodstuffs. Depancreatized animals immediately become diabetic with a rapidly ascending blood-sugar content and die a few days later in a state of coma. In human diabetes this enzyme is not absent, but the amount available is not sufficient and the severity of the disease is dependent upon the percentage of insufficiency and is directly proportional to it. Insulin is the specific factor that supplies this deficiency and the amount and frequency of its administration must, therefore, depend upon the severity of the disease and the amount of foodstuffs, particularly carbohydrates, which are ingested. This deficiency is permanent, the weight and activity of the individual remaining the same, and for this reason its administration must be continued indefinitely.

Insulin does not take the place of dietetic treatment. This must remain much the same as before the advent of insulin. Many diabetics during the early stage of this disease are overweight. Many of these will, when given proper dietetic restrictions, lose their excess fat and become sugar-free. As they lose weight their basal metabolic requirement decreases and it may be possible for them to continue in good health and vigor with only a slight restriction of their food intake. Such patients should not be given insulin merely to satisfy their excessive appetites. No diabetic can be under proper treatment and remain obese. It is only to those who cannot retain a normal blood-sugar level on a diet sufficient to maintain a nearly normal body weight that insulin should be given.

In beginning treatment it is often desirable to first render the patient sugar-free by dietetic means and determine the individual tolerance. Preliminary starvation is always desirable for those who are overweight. When the urine has become sugar-free and the blood sugar has returned to normal the diet is gradually increased and each increase is balanced by a corresponding amount of insulin. When the disease is severe or when for financial reasons it is necessary to cut short the period of hospitalization specific therapy may be begun as soon as the diagnosis has been established and the blood sugar determined. This obviates the discomfort of a very low caloric diet. If the latter method is to be used the patient is put on a diet that is calculated to be sufficient to maintain the body weight at nearly the normal standard and supply enough energy for moderate activity. The proper initial dose depends largely upon the degree of hyperglycemia. If this is not over .300 it is well to begin with one unit before the first meal, two units before the second and three before the third meal. From then on the amount should be increased from day to day until the blood sugar has reached the normal level. After the patient's metabolism has become adjusted to the desired diet it may be necessary to reduce the dosage and the interval of its administration. The total daily dosage varies from two to three up to forty or fifty units. The average case, however, does not require more than ten to twenty units. When this is the case it is often possible by shifting the bulk of the carbohydrate intake to the morning and evening meals to omit the noon dose. In milder cases it may even be possible to maintain the desired result with only one dose daily.

A patient whose urine is sugar-free may still be a very sick diabetic and exhibit many of the complications of the disease. A normal blood-sugar level is the only criterion of efficient treatment. This must be constantly borne in mind and frequent blood-sugar estimations made, for otherwise the disease would be progressive despite the fact that the urine remained sugar-free. When blood is withdrawn, for test purposes, only before breakfast it should be remembered that at this time the blood sugar is higher than at any other time during the day and it is well not to reduce it lower than .130. This is particularly true when large doses of insulin are being administered.

Insulin is a very potent remedy and must be very cautiously used. When an overdose is given a hypoglycemic state is induced. This is manifested by rather characteristic symptoms. With these the patient as well as the physician should be familiar. Joslin and the Toronto workers feel that each patient should be made to experience this condition while under hospital supervision so that they will thereafter be able to quickly recognize it should it again occur. Among the first of these symptoms to appear are sudden hunger, nervousness and tremor, marked weakness, flushing of the face and dilation of the pupils. Usually these symptoms appear when the sugar reaches .070 or .060; and should further depletion be allowed to take place the condition becomes more alarming and there is profuse sweating, anxiety, fear, emotional disturbances, confusion, delirium, convulsion, low body temperature, unconsciousness and death. Fortunately the premonitory symptoms are readily recognizable and are easily and quickly relieved. This can be done by giving some easily assimilable carbohydrate such as a lump of sugar, bread, milk or orange juice. Ten or fifteen minutes of 1-1000 adrenalin solution will usually give temporary relief. When the symptoms have progressed to a more alarming state half an ounce of syrup or glucose should be given orally, or, if necessary, by stomach tube and repeated in fifteen minutes if all symptoms have not disappeared. Should the patient be unconscious, fifteen minims of adrenalin solution will often bring about a temporary return of consciousness so that the antidote can be administered orally. If this cannot be accomplished 100 cubic centimeters of a 10 per cent solution of glucose should be given intravenously. The response is usually very prompt.

The patient with acidosis or coma requires special attention. Coma is not due to a greatly increased blood-sugar content per se but to the accumulation of ketone bodies. These ketone bodies, acetone, diacetic acid and oxybuturic acid, are formed by the incomplete combustion of fat. Fat can utilize only in proportion to the amount of carbohydrate consumed. In other words, the "fats burn in the flame of the carbohydrate," and when the carbohydrate flame burns low there is incomplete combustion of fat and the formation and accumulation of ketone bodies. This alters the reaction of the blood and lowers its carbon dioxide combining power and accounts for the hyperpnoea and the air-hunger type of breathing described by Kausmaul. Insulin therapy is urgently indicated as it increases the carbohydrate metabolism, making it possible to burn these toxic bodies so that they may be excreted. The effect of insulin in these cases is often spectacular.

There are no accurate criteria for the dosage or frequency of its administration in these desperate cases. Most cases in actual coma require from 100 to 500 units. Early administration is of the utmost importance. The usual procedure of Allen and Sherrill is to introduce 25 units into the vein after blood has been withdrawn for test purposes. Twenty-five to fifty units are given subcutaneously and repeated at one- to three-hour intervals, depending on the laboratory and clinical indications. An ascending carbon dioxide combining power and decrease in the amount of acetone are of favorable omen, and the rapidity and extent to which these changes take place are indicators as to the further use of the drug. When such large amounts of insulin are given glucose should be given at the same time to guard against hypoglycemia and reliance should not be placed in the amount of sugar present in the blood stream or the endogenous supply. Roughly, one gram of glucose should be given with each unit. Large amounts of liquid are to be given in the form of water and orange juice. No effort should be made to immediately reduce the blood sugar to a normal level as a somewhat increased sugar content not only acts as a buffer against hypoglycemia but also favors diuresis and the elimination of toxic material. Experience teaches that it is well to keep the blood sugar at about .300 while combating coma. Sodium bicarbonate is of value in most cases but an overdose is to be avoided so that not more than 30-50 grams should be given during the twenty-four

hours. When the ketone bodies have shown a material reduction and the clinical condition is improved the amount of insulin should be reduced, and the interval of administration gradually extended until all trace of acidosis has disappeared; and until this has been accomplished no food should be given except carbohydrates.

Insulin is a great boon to the diabetic patient needing surgical intervention. Formerly these patients were considered very poor risks and often went into a state of coma after any surgical procedure. With the use of insulin this risk has been reduced considerably. The urgent surgical case must be considered a potential case of coma and the blood sugar rapidly reduced to the normal level with large doses of insulin. Patients under diabetic treatment who require surgical intervention receive just before operation an additional dose of as many units as they have been accustomed to receive during their course of treatment. Immediately after operation or during it an estimation of the blood sugar and carbon dioxide combining power must be taken for their indication as to further treatment. It is well to remember that the diabetic with any sort of infection requires larger doses of insulin than would otherwise be the case, because fever and the absence of toxic material increases the metabolic requirement. After the subsidence of such an infection care should be taken lest a hypoglycemic state be induced.

I do not intend here to go into detail regarding the calculation and arrangement of diabetic diets. It must always be borne in mind, however, that 90 per cent of the fat and 46 per cent of the protein are capable of forming ketone bodies and that 100 per cent of the carbohydrate, 56 per cent of the protein and 10 per cent of fat when burned may act in an antiketogenic capacity. The following formula of Woodyat based on these values can be conveniently used:

Fatty acid: .46 P-.9 F.
Glucose: C-58 P-.1 F.

What the ideal ketogenic-antiketogenic proportion should be is still open to much discussion. The greater the proportion of the former the smaller will be the dose of insulin required. Where the cost of insulin is a factor and also in severe diseases more fat should be used than in milder cases of the disease. In the average run of patients the proper diet will fall between 1:1 and 2:1. Just as the treatment of diabetes was a failure before the application of more accurate knowledge of metabolism so also will be it a

failure with insulin unless this knowledge of metabolism is utilized in the dietetic management. In fact, a circumspcctly arranged diet, and faithful adherence to it by the patient, is even more essential with insulin than without it because of the additional danger that hypoglycæmia can be so readily induced by insulin.

A preliminary period of hospitalization is an essential factor in the treatment. Not only can the blood sugar be more carefully controlled during the period of adjustment with insulin but the patient can receive systematic instruction as to how to take care of himself when under less strict supervision. Each patient should be instructed in the weighing and preparing of diets and the simple technique of Fehling or Benedict for examination of the urine. Where intercurrent or other circumstances make it possible to consume the full amount of ration the dose of insulin must be substantially reduced or discontinued to avoid a hypoglycæmic reaction. On the other hand, if the supply of insulin is temporarily interrupted the patient is instructed to reduce the diet by one-third. If sugar then appears in the urine a further reduction should be made. When the diet has been calculated and listed for then, most patients are able to carry out at home with a fair degree of accuracy a routine to which they have become accustomed while in the hospital. Blood-sugar estimations if at all possible should be done at intervals of two to six weeks.

The results of insulin therapy so far fill a bright page in the annals of therapeusis. Many hopeless invalids have been improved to the extent of enjoying fair health and nutrition. Those less unfortunate can maintain health and vigor on a diet that offers only slight restrictions. Infections of all kinds which were so prevalent and caused such a high mortality among diabetics are now no more prevalent among well-controlled diabetics than among the non-diabetic population. Urgent surgical conditions can be relieved without the former dread of an operation. A disease which was progressive can be easily controlled and while under control there is much evidence to support the view that it loses its progressiveness. The return of weight and strength to those in a state of weakness and hopeless undernutrition is truly an inspiring spectacle.

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BILATERAL JUVENILE CATARACT.*

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Name: E. G. White male child, age 13.

Family History: Father, age 39, in good health. Mother, age 32, a patient in County Hospital at this time for a gynecological operation. Mother and father have good vision. Four brothers living, two of which have hookworm disease, and two in good health. Vision of all four brothers is good.

Chief Complaint: Blindness.

Present Illness: Mother states that the patient's vision has always been below par, but that up until about two years ago he was able to play as other children do. Went to school three terms and was in the third grade at the time that failure of vision prevented his further attendance. During the past year it has been necessary for him to be led about and now he only distinguishes light and dark.

Previous Medical History: Measles, whooping cough, malaria two years ago, smallpox one and one-half years ago.

Review of System: Head: Headaches often. Eye, Ear, Nose and Throat: Present eye trouble noted above; occasionally has earache. Cardio Respiratory: No cough or night sweats; feet and legs have been swollen few times; no shortness of breath. Gastrointestinal: Head diarrhea two or three summers with bloody stools; duration about one week. Genitourinary: Negative. Skin: Had eruption in spring of year for past three years; blebs characterized the eruption and it was more marked on feet and lower extremities; no scars. Habits: Appetite good; sleeps well; was never in hospital before.

Source of History from patient's mother.

Physical Examination: White male of 13; not very well nourished and considerably undersize; face has blank expression. Chest: Symmetrical; expansion full and equal; lungs clear; no dullness or rales; heart normal. Abdomen: Liver, kidneys and spleen not palpable; no masses, tenderness or rigidity. Genitourinary: Negative; no hernia. Extremities: Normal; reflexes sluggish. Glands: Cervical glands enlarged. Skin: Warm, moist and pliable; mucous membranes are pale.

Eye Examination: Vision: Right eye, light perception, projection excellent; left eye: light perception, projection excellent. Lids: Conjunc-

* Read before the staff of the Duval County Hospital, December 18, 1923.

tiva anemic; otherwise normal. Cilia: Normal. Lacrimal Apparatus: Normal. Cornea: Normal. Aqueous Chamber: Normal. Iris: Normal; pupils equal in size and reacted to stimuli normally; no synchia. Lens: The lenses were cataractous, giving the appearance of a hypermature, or Morgagnian cataract; the opaqueness was uniform. Fundus could not be seen.

Diagnosis: Juvenile Morgagnian cataract; needling advised.

Laboratory Examination: Urinalysis: Negative. Wassermann: Negative. Feces July 12, 1923, positive for hookworm.

Operative History: On July 14, 1923, after dilating the pupil and maximum with 1 per cent atropine, a needling of the right eye was done under local anesthesia. A Zeigler knife needle was used, it being introduced into the anterior chamber subconjunctively. A crucial incision of the anterior lens capsule was made. Immediately following this an opaque fluid containing flocculent masses poured out. Atropine and the usual dressing were applied.

At dressing the following day there was considerable lens substance in the aqueous channel. The pupil was well dilated. There was moderate reaction. No elevation of tension.

The lens matter rapidly absorbed. Reaction subsided promptly. On July 10, 23 and 26 all lens matter was absorbed, but the anterior capsule showed a slight thickness and it was deemed advisable to do a discission. A small opening was made in the anterior capsule under local anesthesia with a Zeigler knife.

On July 3, 8 and 23 a needling was done on the left eye, using the same technique and with similar results. The lens matter absorbed very quickly, leaving capsule through which the fundus could be seen clearly.

The post-operative treatment in each instance was: Atropine sulphate 1 per cent daily; hot fomentations one hour, three times daily.

Visual Result: December 1, 1923. Right Eye: With plus 14 sphere vision is 20/40. Left Eye: With plus sphere vision is 20/40.

Medical Treatment: On the following dates carbon tetrachloride hookworm treatment was administered: July 7, 19, 27. On July 28 the stools were negative for hookworm.

It is difficult to say that this is a congenital cataract, for we have nothing other than the indefinite statements of the mother to guide as to the child's visual acuity previous to two years ago. However, if the child progressed in school

as stated, it is reasonable to assume that he had good vision. Then his cataract must be due to some condition that occurred after birth. Cataracts resulting from hookworm disease have been reported in the literature, and in this particular case it is certainly a possible etiological factor.

APPENDICITIS.*

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It is an established fact of which we are proud to say, that appendicitis was proven as a disease entity, by an American, Reginald Fitz, of Boston, in 1886. I venture to say that there has been more discussions, more literature published one way or another since 1886 on this subject than any other subject pertaining to the body, and even with all that has been written and all that has been said since Fitz's time, we have, after the long span of thirty-seven years, yet to reach the acme of perfection in the handling of these cases.

Carr of London, in a recent paper, states that in spite of all advances of diagnosis and treatment, the death rate from appendicitis in England and Wales tends to increase rather than diminish, and now amounts to about 2,500 deaths a year or a little over 200 a month, and it is believed if figures were accurate and available, we should find that the death rate from appendicitis in the United States is not diminishing.

So far as we know today, appendicitis is not a preventable disease, but we do know this fact to be true, the possibility that if the patient is seen early and properly treated, the mortality rate will be kept at a low figure. The mortality rate for acute appendicitis ranges from 3 to 6 per cent, and in some cases higher. The end-results of operation for acute appendicitis is uniformly good, and while we find the end-results of operations for chronic appendicitis not so good, the percentage of unrelieved cases is alarmingly high. Thus, Deaver and Rodvin¹, in reporting the end results in 226 cases, report 9.7 per cent as only partially relieved and 7.07 per cent as unrelieved. Gibson², reporting 426 cases, reports 15.2 per cent as partially relieved, and 23.9 per cent as unrelieved. Such figures as these may well give us

*Read before the Florida Midland Medical Society, at Bartow, Florida, October 22, 1923.

¹Deaver, J. B., and Rodvin, I. S.: End Results of Five Hundred Cases of Chronic Appendicitis, Arch. Surg., 6:31-40 (Jan.) 1923.

²Gibson, C. L.: Results of Operations for Chronic Appendicitis, A. M. J. M. Sc., 159:654-663, 1920.

pause and force us to an intensive study of the factors that underlie such figures.

Lower and Jones³ believe the high operative mortality in cases of acute appendicitis and the post-operative morbidity in cases of chronic appendicitis are due in a large measure to the common belief that in each case the only proper procedure is the removal of the appendix.

When the patient with acute appendicitis comes to operation, the removal of the appendix alone does not correct the damage already done by the attendant peritonitis, and there should be a more general appreciation on the part of both of the laity and of the profession that acute appendicitis with attendant paritonitis is not a localized but a systemic disease, to which the appropriate after-treatment as well as the appropriate operative procedures themselves must be applied. The morbidity after operations for chronic appendicitis in the majority of cases, is due to incorrect diagnosis—correct diagnosis in cases of supposedly chronic appendicitis and the proper handling of acute cases will lower the mortality rate of the latter condition and the morbidity rate of the former.

In contradistinction to these discouraging factors in the problem, it is pleasant to note a more encouraging condition. With the increased tendency of the public to consult a physician for chronic as well as for the acute disturbances, with their diminished reluctance to submit to surgical operation and, on the part of the surgeon, with increasing attention to the importance of the appendix as a focus of infection which may be responsible for many types of general functional disorders, the statistics of Lower and Jones show what appears to be a decreasing number of acute appendicitis cases and a corresponding increasing number of operations for chronic appendicitis.

Their earlier series of operations for appendicitis shows that 60 per cent were for acute and 40 per cent for chronic appendicitis. Their series for the last two years shows that only 28 per cent of the total number were for acute appendicitis while 72 per cent were for chronic appendicitis.

Cooke⁴ of Los Angeles recently made some very pertinent remarks regarding the problem of diagnosis in surgical lesions of the right iliac region. He says, in some sense, most intra-abdominal operations are exploratory. After every diagnostic recourse has been exhausted, it happens with dis-

concerting frequency that conditions are encountered at operations of a different and far more serious character than was anticipated. This is especially true in lesions of the right iliac fossa, in which the appendix so completely dominates the diagnostic picture.

Enumeration of the extra-abdominal conditions alone which have been mistaken for appendicitis and treated by operation would make an interesting list, embracing such diverse maladies as pneumonia, tabes, sciatica and spinal caries; and practically every intra-abdominal lesion has furnished the occasion for similar misdirected enthusiasm. He further states that a series of recent cases in which the diagnosis of appendicitis proved to be incorrect or in some respect misleading has served to direct his attention very forcibly to this question. When first seen, each one of these cases presented every appearance of a typical acute attack, and delay for prolonged study seemed both unwise and unwarranted. In the light of the operative findings, it is quite evident that accurate differential diagnosis would not have been possible even had time for investigation been unlimited.

CASE 1.—Operation disclosed a normal appendix, about 6 inches from the ileocecal valve, the ileum presented small undurated mass with many dense adhesions about it. The intestine was twisted upon itself so that almost complete obstruction had resulted. The indications were clear for resection.

This was done and end to end anastomosis with sutures effected. The condition proved inflammatory.

CASE 2.—The trouble was found at base of appendix and involving the cecum as well, a large area of the latter being densely infiltrated and presenting numerous foci of suppuration and necrosis. Operation consisted of resection of approximately two-thirds of the diseased cecum.

CASE 3.—Presented typical symptoms of acute appendicitis. An oblique muscle splitting incision was made, no appendix or cecum found or any pathologic changes in this vicinity. A second incision was made through rectus muscle on a higher level and the cecum and appendix found. Appendix lay in contact with gall-bladder, with newly formed adhesions extending in all directions.

CASE 4.—A physician, with a diagnosis of acute appendicitis. Operation revealed a large tumor of the cecum which proved to be a diverticulum of the cecum containing a firm, round fecal-

³Lower, William E., and James, Thomas E.: *Surgery of the Appendix*. Jour. A. M. A., Vol. 81, No. 8, 629-631.

⁴Cooke, A. B.: *The Problem of Diagnosis in Surgical Lesions of the Rt. Iliac Region*. Jour. A. M. A., Vol. 81, No. 8-627-629.

ith approximately $\frac{3}{4}$ inches in diameter. A total excision of the cecum was done; an end to end anastomosis of the ileum to the ascending colon being made with sutures.

I have had two cases recently where the appendix was found in close proximity to the liver.

These cases will suffice to indicate the diagnostic uncertainties and operative difficulties that may be associated with the surgery of appendicitis. As matters stand at present, the general practitioner, so far as relates to appendicitis, practically no longer exists. It has come to be the rule in most communities that the family physician who usually first sees these cases is himself both willing and eager to operate. Asked whether he does surgery he is apt to reply, "No, except in simple cases like appendicitis." And may I ask what will be the results in some of the unfortunate cases handled by the man who acknowledges he does not do surgery except in simple cases like appendicitis? This is one of the contributory causes for failure and increased percentage in mortality. Then, if you please, the procrastinating doctor who first sees the case, and the patient who prevails upon him to wait until the following day. Also, we yet in this supposedly enlightened time see cases that have had calomel, oil and salts administered and morphine injected to ease the belly pain. This is condemned as being really criminal. Let us remember this one point, that there is a grave elemental danger in acute abdominal pain and that home treatment must be limited to (1) bed rest, (2) no water, food or medicine by mouth, (3) no laxative other than a small, low enema, (4) no sedative, not even the ice bag, and (5) the physician. Physic and food have caused more deaths in this disease than delay or indifferent surgery. The appropriate treatment of severe acute cases, which includes faithful application of the Ochsner treatment before operation, after the operation Fowler's position, plus Ochsner treatment, plus the Alonzo Clarke treatment for peritonitis, plus large hot packs over the abdomen, plus hypodermoclysis, plus intravenous glucose solution. The full treatment must be rigidly applied to get the best results.

In all acute appendicitis cases where there is drainage and the appendix is not readily accessible, the removal of the appendix and such other exploration as may be advisable being deferred until the acute state is past. In other words, get in and get out—with drainage tubes properly placed.

The late great Master Surgeon John B. Murphy said in diagnosing the gangrenous appendix we must always bear in mind that pain, nausea and vomiting, fever, and leukocytosis, are all reactions to infection, not infections themselves. They are not disease, they are the manifestations of disease in the lining. The appendix which is dead, like the patient who is dead, presents no symptoms.

The mortality rate in appendicitis in children is three or four times as high as in adults. No doctor lets his own child go unoperated through an attack of acute appendicitis. Why should he treat his patients any differently?

The most important acute lesions or affections of the abdomen to be differentiated from appendicitis, are the acute inflammations of the gall-bladder, stomach and duodenal ulcers; typhoid fever; stones in the right kidney or ureter; pneumonia, especially in the lower lobe of right lung, with or without pleurisy; pain from lead poisoning producing acute griping in the abdomen; and in the female acute pelvic inflammations, or ruptured ectopic pregnancies.

Gall-bladder affections, either acute or chronic, the pain is most invariably located directly over the gall-bladder, at the junction of the 9th costal cartilage with the sternum; pain referred to back under right scapula, intermittent and more griping. Often a tumor or distended gall-bladder may be palpated or percussed associated with history or previous attacks of jaundice.

Stomach and duodenal ulcers, there is nearly always a history of long-standing digestive disorders, this pain is likewise higher in the abdomen. As a rule, is affected by intake of food.

Few cases of typhoid fever should be confounded with appendicitis. The onset of common typhoid is seldom sudden. The temperature is usually typical and there is nearly always a history of prodromal symptoms of several days. The pain on palpation is not intense, and there is seldom any muscular rigidity.

Stone in the kidney, or ureter, is usually easily differentiated. The pain almost invariably originates at the site of the kidney, radiating down the course of the ureter, into the bladder and often into the external generative organs down the inner side of the thigh. It is more griping and often ends suddenly by a stone passing into the bladder. The character is usually different; in stone is often intermittent—microscopic examination of urine is valuable. The x-ray is nearly always positive as to absence or presence of stone.

A differentiation of pelvic disorders from appendicitis is often most difficult. But with a history of a venereal infection, and pelvic examination, we should be certain of a diagnosis. The proximity of the menstrual period is most important, especially in young girls, ectopic pregnancy, ruptured or not; nearly always there is a history of irregular menstruation. The pain is extremely sharp and lancinating, with, as a rule, profound shock and palor and evidences of internal hemorrhage. In doubtful cases pelvic examination should always be made.

The most difficult condition to differentiate is pneumonia of the lower lobe of the right lung, or indeed in any portion of the right lung, with or without pleurisy. A careful history, thorough examination of chest, the presence or absence of a cough, should be noted, rapid and painful respiration, high temperature and pulse, aid much. There is seldom the nausea and vomiting of appendicitis with pneumonia.

It has been my rule for years to remove the appendix in all cases where the abdomen was opened for other causes, unless it was that the condition of the patient would not allow the extra time consumed.

CONCLUSIONS.

1. That the present mortality rate in acute appendicitis is still too high.
2. That the incidents of error in operations for chronic appendicitis is still too great.
3. More stress should be laid on the treatment of the attendant peritonitis in acute cases and less on the mere removal of the appendix.
4. More care and detail work in the diagnosis of all chronic appendicitis cases is most essential.

ANAPHYLAXIS AND THE SURGEON.*

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The term "anaphylaxis" means "against protection" and was introduced by Robert Richet, the French physiologist, in 1902, to designate a peculiar power possessed by certain poisons of increasing the sensitiveness of an organism to their toxic action. As early as 1791, however, Jenner in his classic work on vaccination, described certain phenomena which we now know were definite anaphylactic reactions. Moreover, Magendie in 1839 observed that dogs which had

been injected with a foreign serum developed a peculiar form of illness which often resulted fatally if they were reinjected within a period of ten or twelve days.

Richet experimented on dogs, injecting into them an extract obtained from the tentacles of the sea anemone. Soon afterwards von Pirquet and Schick reported similar reactions in patients suffering from scarlet fever who had had repeated injections of antistreptococcic serum. They found that an animal injected with a foreign serum reacted to a second injection in a manner very different from the first, and they showed that in order to obtain this changed reaction eight to thirteen days must have elapsed between the first and second injections. Seeing the correspondence between this period and the incubation period of many of the infectious diseases, they brought the phenomenon linked to immunity and gave it the name "allergy." Until we know more about the nature of the process, however, it is preferable to employ Richet's original term meaning a condition of hypersensitiveness.

During more recent years various investigators have shown that animals can be sensitized, that is, rendered hypersensitive, not only to horse serum but to a great variety of other foreign proteins, such as egg albumin, hemoglobin, milk, oatmeal, extract of peas, and bacterial proteids, including those of the colon, anthrax, tubercle, yeast, and typhoid bacilli. Even the laity recognize that some people cannot eat certain articles of food without breaking out in hives. Probably the most numerous of such cases are those who cannot eat strawberries, without developing urticaria and pruritus.

The explanation of this condition is that when a foreign protein is introduced into the blood of an individual, antibodies for that particular protein which are either present at the time or are soon formed, begin the destruction of such foreign protein. This is accomplished by decomposition or splitting up into simpler forms of matter. When the decomposition reaches a certain point, poisonous products are formed, but these are further decomposed into non-poisonous products. Should a large amount of the poisonous products be liberated at one time they might do great damage to the individual before they could be further decomposed and rendered inert. Practically the same process occurs in gastric and intestinal digestion, but the

*Read before the Florida Midland Medical Society, October 24, 1923, at Bartow, Fla.

poisonous products are easily decomposed and rendered inert before they are absorbed into the system. Should digestion stop at this point, the poisons might be absorbed and cause a condition of auto-intoxication which may be looked upon as analogous to anaphylaxis. It is probable that upon the introduction of the foreign protein of horse serum, in anti-toxin for instance, there are but few anti-bodies for that particular substance present. Its destruction or breaking up takes place slowly and small amounts of the poisonous products of decomposition are liberated at a time and they are soon neutralized without doing any injury. During this process, large amounts of antibodies are formed. If now, at the height of production of these antibodies, usually in about eight to ten days from the first injection, another injection of the same serum be given, it is decomposed so rapidly that a large amount of the toxic element is produced at once, and the injurious effects of anaphylaxis are manifest.

The true anaphylactic reaction developed within twenty minutes after the introduction of the foreign protein and consists of a more or less severe asthmatic attack with dyspnea and flushing of the face, followed by cyanosis, sweating, cough, general anxiety, and an urticarial eruption. Occasionally in from twenty minutes to one hour after the injection of a foreign protein, there may occur chilly sensations or a general chill, slight difficulty in breathing, and cyanosis. The temperature rises rapidly $1-3^{\circ}$ and then falls, often to normal. During this fall there may be profuse sweating. Such reactions are known as thermal reactions and have not been classified as anaphylactic in nature because they often occur after the first injection of a foreign protein. A third type of reaction and one that is anaphylactic in nature, is the so-called serum sickness or disease. This usually appears within seven to fourteen days after the injection of the serum and is manifested by fever, skin rashes, most frequently urticaria or erythema of the skin, general glandular enlargement, and pains in the joints. These symptoms may appear singly or in combination. The attacks may recur one or more times at intervals of a few days to a week or even longer.

At the time that Richet coined the term "anaphylaxis" the research work consisted mainly of laboratory work upon animals, but it was not long before William Dunbar, an American

physician in Hamburg, Germany, investigated the disease of hay-fever and found that it was due to pollen circulating in the air. He set to work to produce vaccines to combat the fever and gave to the profession pollatin. His work stimulated other investigators and during the past eight years much and valuable work has been done, not only on hay-fever but the related diseases of bronchial asthma, angio-neurotic edema, and the various food intoxications. Webb and Goodale, of Boston, have been very successful in treating many cases of hay-fever with the vaccine, while Austrian in Baltimore reported his investigation upon angio-neurotic edema as a symptom of hypersensitiveness to certain articles of food.

The term "angio-neurotic" means a vaso-motor neurosis and it is interesting because for a long time the emphasis placed upon the neurosis obscured the real etiology of the lesion. It has long been recognized that there is a neurotic element in patients suffering from bronchial asthma and hay-fever and, in fact, in all cases where there is hypersensitiveness to a foreign protein, there seems to be a neurotic tendency and a somewhat unstable circulatory system. However, the belief that these patients were simply neurotics has often blurred the vision of the diagnostician and subjected the patient to months and even years of suffering when if the condition had been correctly analyzed and the etiological agent sought, it would have relieved the patient mentally and physically.

Three methods have been employed for the determination of hypersensitiveness in an individual. The first, and apparently the simplest, yet often the most tedious, is the elimination test, removing foreign proteins one by one and finally reaching the guilty one by a process of elimination. The second, or cutaneous test, is more satisfactory and is easily performed. The skin is abraded without drawing blood and an aqueous 5% solution of the suspected substance is rubbed in as in ordinary vaccination, controlling it by means of normal salt solution. If hypersensitiveness exists an urticarial wheal with a pink areola should appear in about ten minutes and persist 30 to 40 minutes. The third, or intracutaneous test, is still more sensitive but somewhat painful. A small drop of 2% solution of the substance is injected into the skin with a very fine needle, the syringe being laid almost flat on the arm. The same urticarial wheal with an erythematous

areola, with perhaps a small papule, should develop within 30 minutes, provided the reaction is positive. The maximum reaction may be delayed for several hours and not infrequently an infiltrated nodule persists 24 hours or longer.

With these remarks we will dismiss the general subject of anaphylaxis and turn our attention to the more narrow field of the relation of the surgeon to anaphylaxis from the standpoint of his patients and from the standpoint of himself. I wish to report tonight several cases of hypersensitiveness that have occurred in your midst during the past year and with which some of you are already acquainted. Finally, I want to give a demonstration of a delayed anaphylactic test.

From the standpoint of the patient the subject may be divided into therapeutic anaphylaxis and diagnostic anaphylaxis. Therapeutic anaphylaxis must be considered whenever we administer a dose of tetanus antitoxin. How many of us before giving the customary 1500 units inquire into the past history of the patient regarding hay-fever, bronchial asthma or the previous injection of horse serum for one cause or another? Or, how many of us before injecting the entire amount of the serum, inject one or two drops into the skin and wait five or ten minutes to see if there is a reaction? But suppose the doctor is thoughtful and does think of the danger and makes the simple but effective test and finds the patient is sensitive to horse serum and yet feels that the patient should have the antitoxin, what should he do? He can desensitize the patient by the repeated injection of very small amounts of serum, subcutaneously at first, then intravenously. The details need not be mentioned here. The same precautions must be used in administering horse serum to control post-operative hemorrhage or as a prophylactic against hemorrhage in the icteric. Some of us have seen severe attacks of serum disease following the injection of serum for this purpose. In the administration of sera for the treatment of streptococcic, staphylococcic, and gonococcic infections anaphylaxis must likewise be considered and guarded against. Finally in the rare case of gas gangrene, whether the serum used is the monovalent serum of Bull and Pritchett or the polyvalent serum of the Pasteur Institute, anaphylaxis again must be reckoned with.

Turning now to the side of diagnosis, how does the surgeon make use of anaphylaxis?

First, in the detection of tuberculosis. There are four standard tests, the Calmette or ophthalmic test, the intracutaneous test of Mantoux, the von Pirquet or cutaneous test, and the subcutaneous test. Since from the surgical standpoint the test is most often employed in the diagnosis of bone, joint, and gland tuberculosis, the subcutaneous test is the preference as it is most likely to be of value on account of the focal reaction of hyperemia, swelling, heat, and pain. Second, the luetin reaction in the diagnosis of syphilis. This test is not as well known as the Wassermann test and is not as reliable as the Wassermann test, but is often helpful in the diagnosis of late-acquired syphilis and congenital syphilis. In the diagnosis of the rare diseases sporotrichosis, blastomycosis, and glanders, the intracutaneous tests have been helpful.

Let us now consider anaphylaxis as applied to the surgeon himself. The health of the surgeon is of little importance in the majority of communities during the time of peace, but it is a matter of vast concern in the time of war. During the period of modern aseptic surgery it has been frequently observed that the hands of some surgeons cannot tolerate the solutions often used in the disinfection of the hands, such as potassium permanganate and oxalic acid, Harrington's solution, and dichloride of mercury. Usually this has revealed itself in a dermatitis of varying degree and not by an anaphylactic reaction. However, the dermatitis has been sufficient to incapacitate a man for a longer or shorter period of time and this occurrence of the dermatitis has led to a more simple preparation for the hands until today in many hospitals the technique consists of the usual scrub with green soap and water followed by a rinse in sterile water and then a soak in alcohol. Since the universal adoption of the use of novocaine during the past few years a few cases of true anaphylactic reaction to novocaine have been observed and reported as occurring among the dental and medical professions. A few such cases have been reported in the literature during the past eighteen months. Tonight I wish to report one case of hyposensitiveness to novocaine and one case of hyposensitiveness to dichloramin-T. I have failed to find a single case of the latter reported in the literature. The history of the two cases will show how rare hypersensitiveness to these substances has been and through what suffering, both mental and physical, a patient will often have to pass

before a correct diagnosis is finally made and the ailment easily relieved. The case of hypersensitiveness to novocaine will be reported first because it not only occurred first, but its diagnosis was the key to the diagnosis of the second case.

Dr. R. J. has been practicing eye, ear, nose and throat surgery in this city for nineteen years and has used a large amount of novocaine during the past five years. About four years ago, he noticed a few small vesicles on the dorsum of his right hand. These would appear at odd times, remain a few days and then disappear and another crop would appear after several weeks. These vesicles itched intensely and when they were scratched serum would come from them. As they grew worse and became more frequent, he tried to discover their cause and as he is a great sportsman and likes the outdoors, he thought that he perhaps had some form of poison ivy or poison oak. Therefore, he stopped hunting, but the vesicles continued to form and began to spread. They no longer confined themselves to the dorsum of the right hand, but huge bullæ appeared on the palms of both hands, but principally on the right. Then he thought tobacco might be the cause as he was an inveterate user of the fragrant weed, so he ceased using tobacco. But still the vesicles and bullæ continued to form, his hands would swell and itch, and when the vesicles and bullæ were ruptured they often became infected and huge, raw places and abscesses would form. The hands would get better with a rest and then after a few days of work they would go bad again, and thus it was a continuous performance of work and rest, but the patient was meanwhile laboring under a severe mental strain and had periods of pronounced depression. When a vesicle was ruptured, if the serum from it touched an area of normal skin it seemed to act as an irritant and produced vesicles. During this time the patient wore cotton gloves beneath his rubber gloves to relieve the pain produced by the slightest pressure on his fingers or hands. Even the pressure of instruments was sufficient to produce intense pain. Seeking to discover the cause of this insidious disease, the patient started a process of elimination. He stopped petting his dog, but that did not help. Then the parrot, again with no results; and in turn he tested meats, eggs, salt, milk, and his favorite pastime, fishing. All to no avail. Many remedies were tried, from sulphur-soap to iodine, only temporary relief was obtained. Finally, in

desperation he left Tampa, in February, 1922, and went to Baltimore and consulted some of the best dermatologists in that city. Cultures were made from the serum contained in the vesicles and they were negative for growth. A diagnosis of dysidrosis or pompholyx was made from the following facts, that the majority of the vesicle and bullæ were situated in the palm of the hand, that they apparently developed in the coil glands of the skin, that they occurred in crops, that they tended to coalesce, their freedom from spontaneous rupture, and the frequent occurrence of secondary pyogenic infection. X-Ray treatment was advised but refused. On leaving Baltimore the patient was apparently well, so he returned to Tampa and began work once more. He had noticed before that whenever he stopped work the lesion seemed to disappear, whether he left this city or not. The vesicles appeared again soon after he returned from Baltimore and he decided to take a long vacation. In April, 1922, he went to Hot Springs, Arkansas, where he took the baths and was free of the eruption after two weeks. Then he took an extended trip West and visited his brother in Colorado and returned to Tampa in August, 1922. The second day after his return he did a tonsillectomy under local anesthesia of 2 per cent novocaine in his office. He had always used gloves in these operations, but when he got his gloves out for this operation he found that they had rotted during his absence so he performed the operation with bare hands. In injecting the novocaine, some of it leaked from around the needle and ran down the inner posterior side of the index finger of the right hand, continued across the dorsum of the hand and stopped on the palm surface of the wrist. Another drop ran to the ulnar side of the hand and stopped at the hypothenar eminence. The patient thought nothing of this, but one hour later noticed that the hand felt stiff and the next morning when he arose there was a line of vesicles down the index finger and across the dorsum of the hand, and the palmar surface of the wrist was a solid mass of inflammation. The diagnosis was made right then, the patient was forced to stop work for two weeks to recover from the inflammation, but his mind was set at rest and he regained his enthusiasm and interest in his work, which he had entirely lost during those three years. He continues to use novocaine, but always protects his hands with rubber gloves and never uses a pair of gloves twice, because he has found

that even the smallest trace of novocaine left on the gloves after thorough washing is sufficient to produce the vesicles. Several months ago while doing a tonsillectomy, some novocaine squirted on his forehead and the typical vesicles appeared after twelve hours. He has found that it usually takes eleven hours for the reaction to appear after a drop has touched his skin, and about two weeks for the crop of vesicles to disappear. This is done by process of exfoliation of the underlying stratum corneum. The rupture of the vesicles leaves a raw area and, therefore, it is best to leave the vesicles intact.

The history of the second case resembles that of the first in many respects. It differs from it in the duration and the distribution. The second case ran from April, 1922, until April, 1923, and the vesicles came first on the upper lip and they were so small at first that they escaped detection. The lip was about three times its normal size and clear serum came from it, causing the patient to think he had a case of weeping eczema. The lesion then spread to the lower lip and by the end of a week a few vesicles appeared on the fourth finger of the right hand. The condition of the lips was probably aggravated by repeated shaving. The patient took purgatives and sweat-baths but still the condition grew worse, so at the end of a week he went to Baltimore to consult a dermatologist. By that time the right ear was slightly involved. The raw area on the lips had become infected and a diagnosis was made of suppurative sycosis. Cultures showed a growth of staphylococcus aureus. The dermatologist said, however, that he thought the lesion might be anaphylactic in nature due to some article of diet and advised the patient to remain in Baltimore long enough to be tested out against different foods. The patient felt that he must get back to work, and since, after one week of rest in bed and the application of Burow's solution, the lesion had cleared up, he returned to his work in West Virginia. After two weeks of hard operative work the lesion again appeared and this time spread over both lips and cheeks, both hands and both ears. The ears were swollen to three times their normal size and pus ran from them. Various remedies were tried, but nothing gave relief except the Burow's solution. After six weeks' of this he again returned to Baltimore and consulted one of the leading dermatologists in that city. He was told that the lesion was simply a weeping eczema and was given the stock

ointment for such, containing oil of cade. At the patient's request, two very light X-Ray treatments were administered. The condition grew better and again after a week the patient returned to West Virginia and began work. The vesicles appeared at the end of a week and this time the palmar surfaces of the wrists were chiefly involved. The patient then limited his work to the operative side and had his assistant do the dressings. Moreover, he went to Roanoke, Va., every three weeks for X-Ray treatment. Under this regime the lesion began to disappear and by the first of August the skin was practically clear. Meanwhile he had experimented with the water-supply to some extent; and, after an intracutaneous test with the drinking water had given a mildly positive reaction, he had decided that the water in that region was responsible for the trouble. Accordingly, all water used for drinking purposes was boiled. There was no doubt about the water in that section being bad, because it was often so contaminated that the air was actually foul. For cleansing purposes, olive oil was used to a large extent. On the first Sunday of August the patient planned to make a trip across the mountain to take a swim and therefore did the dressings, so that his assistant could have the morning free. That afternoon he took a long swim and it was the first time that his face had touched water for three months. The following morning his face was swollen badly and covered again with vesicles. The natural conclusion was that the water was the etiological agent and it was tabooed. The patient left West Virginia in the early part of September and took a month's vacation in Maryland before coming to Florida. The skin eruption disappeared within a week after leaving West Virginia and the patient felt confident that the water of West Virginia had been the cause. Three days after arriving in Tampa, in October, after being up very late one night and overloading the stomach, a few vesicles appeared on the right hand and there was some itching, but the vesicles soon disappeared without any treatment. On the 19th of November, while at a private house for dinner, the patient drank a rather large amount of whiskey. Three hours later he felt his hands getting hot and itching and they felt as though they were many times the normal size. The following morning they were covered with vesicles, and a few vesicles appeared on the upper lip. He consulted Dr. Dickson about the advisability of X-Ray treatment

and Dr. Dickson very kindly gave a course of six treatments at that time and repeated the same the beginning of this year. After the attack in November the patient had no further trouble until the 15th day of March. Suddenly without any warning there appeared the characteristic vesicles on the fingers of the left hand and on the upper lip. The next day they continued to spread and on the 17th day they were on the lower lip and had also involved the palmar surface of the left wrist. The patient was desperate and the mental depression was marked. Finally he talked over the situation with patient No. 1 and was advised to remain here and try to find the cause from the history and by skin tests. In reviewing the recent history it was seen that he had used three substances that week that he had not used previously since coming to Tampa. They were green soap, guava wine and dichloramin-T. It seemed foolish to suspect the first and last because they had been used extensively by the patient while he was in the Union Memorial Hospital in Baltimore and the Rockefeller Institute in New York, but nevertheless it was decided to test them and Dr. Blake was asked to give the cutaneous test. One test and its control was done each day on three successive days. The first two gave no reaction. The third was done at noon one day and at 8 o'clock that night there was no reaction apparent. The patient then took a long drive and on returning home at 11 p. m., noticed that his right forearm where the test had been given itched a great deal. On removing his shirt he found a vesicle the size of a silver quarter. The following morning the vesicle had ruptured, leaving a raw area which grew to the size of a silver dollar. That day another cutaneous test was done on the left forearm and it likewise was positive after 11 hours. It took two weeks for the wounds to heal and at least six weeks for the discolorations to disappear. The use of dichloramin-T was discontinued and the patient has had no further trouble with his skin. After the diagnosis was made it was easy to follow the history of the disease and to explain each detail. The patient had used dichloramin-T extensively in the Army, he used it very little while in hospital work in Baltimore after the war. When he went to West Virginia he found the dressings being neglected. There was the need of an antiseptic that could be used once daily with good results, so he installed the dichloramin-T and did all the dressings at first so as to show his

assistant how to use it. The skin eruption appeared one week after the installation of the dichloramin-T. Its first appearance on the upper lip was explained by the fact that the patient has always liked the smell of that antiseptic and whenever he got a bit of it on his fingers he would rub his nose to get the smell. The freedom from the eruption in July, 1922, is explained by his not doing dressings, and the recurrence after the swim the first Sunday in August was caused not by the water but by the dichloramin-T used in the dressings that morning. As for the two minor attacks just after coming to Tampa they seemed to depend upon a dietary indiscretion and a circulatory disturbance. The history of the last attack is like that of a text-book. The dressing with the dichloramin-T was done with the left hand and the patient distinctly remembers rubbing his nose with that hand and scratching the back of his neck, the spots where the vesicles appeared.

In both cases reported the lesions consisted of vesicles varying in size from a pin-point to a pin-head. Usually the appearance of the vesicles was preceded by a sensation of heat, swelling, tingling and itching in the location affected. The area also became very red. After a few hours of these signals the small vesicles would appear. They would gradually become larger, remaining discrete for four or five days and not increasing beyond the size of a pin-head. Later they would coalesce. If left alone and not injured they did not tend to rupture and the healing was accomplished by a process of exfoliation. Whenever the vesicles were ruptured raw surfaces formed and pus appeared unless sterile dressings were applied. When in a location such as the palmar surface of the wrist and exposed to frequent friction from the sleeve, the vesicles quickly coalesced and formed large bullæ and the surrounding tissue gave the appearance of a cellulitis. In the first case, abscesses did not form and the patient bears a few scars now as the result. The location of the vesicles in the two cases was somewhat different. In the first case they were chiefly in the palms of the hands, leading to the diagnosis of pomphylx. In the second case the face was mainly attacked and the palms of the hands were relatively free of the lesion. In both cases the reaction came eleven hours following exposure and it took two weeks always for a crop of vesicles to heal. Burows' solution was beneficial in both cases. X-ray treatment helped the

second case but did not prevent the recurrence of the lesions. In both cases the merest trace of the respective poison produced the lesion.

In both cases we are dealing with an organic compound from the chemical standpoint. Both substances are carbon compounds and belong to the benzene series. Both are neutral in reaction. One is soluble in water, the other is not. In the first case we must regard the substance as a stable compound. In the second case, the substance itself or one of its derivatives may be responsible for the reaction. Dichloramin-T is neutral in reaction and non-irritating to the skin and has only slight solvent action. When exposed to the action of light and moisture, it readily decomposes liberating chlorine and hydrochloric acid is formed. Since dichloramin-T is insoluble in water, an oil must be used for the vehicle and as most oils are attacked by the tremendously active chlorine, it is necessary to use as a solvent an oil which has been previously saturated with chlorine. Chlorcosane is used for this purpose. It is hard paraffin that has been saturated with chlorine gas. This saturation lowers its melting point and it remains a liquid. It is not an antiseptic in itself. In the second case, therefore, we do not know whether the patient is sensitive to the dichloramin-T or to one of its derivatives. The natural assumption would be that the powerful chlorine gas was producing the reaction. However, the patient has been in contact with Dakin solution since the diagnosis was made and there has been no reaction in spite of the fact that Dakin solution when applied to the normal skin for any length of time is highly irritating. Dichloramin-T on the other hand is non-irritating to the normal skin and for that reason alone is much easier to handle.

Both cases present a dermatitis and since the dermatitis is due to a poisonous substance and not to a mechanical injury we must necessarily classify them under dermatitis venenata which covers a broad field and allows much speculation regarding the etiology. However, in reading the text-books and the current literature one is impressed by the fact that the dermatologists are coming more and more to the belief that anaphylaxis is back of all these reactions to foreign substances. To illustrate the close association of dermatitis venenata to bronchial asthma, compare the person who develops a dermatitis after simply passing near *Rhus toxicodendron* with the person who goes into a fit of bronchial spasm

after smelling a horse. In other words, in these cases we must consider the dermatitis merely as a symptom just as we now do angio-neurotic edema, and recognize that behind all of these diseases, whether it is the bronchial musculature, the nasal mucous membrane or the skin that is primarily attacked, that we are dealing with the same fundamental condition of anaphylaxis or hypersensitiveness to a foreign substance.

TREATMENT OF INTESTINAL OBSTRUCTION.*

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It is conceded that the surgical treatment of intestinal obstruction is one of the greatest and most disastrous operations which confronts the surgeon. Prompt and accurate diagnosis and early surgical intervention are of the utmost importance.

A surgeon's emotions are sure to be mingled with pride and chagrin. In one instance, a brilliant operation has saved a patient's life. In another, procrastination and hesitancy has thrown away a last chance, and death takes the winning trick.

Acute intestinal obstruction may be mechanical or paralytic. In most cases obstruction is due to external strangulated hernias, volvulus, intussusception or post-operative and post-inflammatory bands.

Symptoms are usually rather definite, variations occur, due to the location and the nature of the obstruction to the stage of the obstruction and to the completeness or incompleteness thereof. The condition usually runs its course in three stages.

First stage: There is a sudden, severe pain; nausea appears promptly; vomiting is usually persistent; pulse, temperature and respiration about normal. There may be slight bowel movement. If these symptoms remain unchanged after gastric lavage and one or more high enemas are given, then surgical treatment would seem inevitable.

In the second stage the pain continues, varying in degree between paroxysms of agony and intervals of relative ease. The vomiting, which is persistent, indicates somewhat by the quantity

*Read before the fiftieth annual meeting of the Florida Medical Association held at Jacksonville, May 15, 16, 1923.

emitted, the location of the obstruction. The character of the vomitus changes with the progress of the affection. The abdomen is distended, the legs drawn up, the pulse rate increased, the temperature slightly elevated. There is rather characteristic anxiety facies. The white blood count usually is normal, providing there is no inflammatory condition at the site of the obstruction.

The third stage is accompanied by signs of collapse and shock. The pulse is thready and there is usually regurgitation of black fecal smelling vomitus through the mouth and nose. Surgical intervention becomes imperative. Palliative treatment is indicated only in cases in which the general physical condition is such that the operative danger is prohibitive. At operation when the obstruction is located there are conditions which confront the operator; first, the relief of the obstruction; second, the repair of the bowel; third, whether or not to drain the bowel at the site of the obstruction.

The removal of the intestine at the point of the obstruction is at times essential, but often more complicated conditions are presented by the bowel changes caused by the obstruction. Here your operative judgment must prevail in the treatment instituted.

If the obstruction has continued for sometime and the elasticity and contractility of the bowel are markedly involved the bowel should be drained above the point of the obstruction. The drainage of the upper bowel has been shown by clinical experience to be of great value. First, because the toxic material in the bowel is removed. Second, the distension of the bowel which has impeded the circulation is relieved.

After the diagnosis has been made and if operative procedures are advisable, morphine should be given hypodermically to quiet peristalsis; the stomach emptied by lavage, and the rectum evacuated by an enema unless such already has been done. Purgatives are contraindicated. In the absence of a definite diagnosis, the abdomen should be opened in the median line below the umbilicus. If the cecum is distended explore the sigmoid flexure: if the sigmoid is collapsed the obstruction is in the large bowel between the sigmoid and the cecum. If the cecum is collapsed it will be necessary to follow the small bowel until the obstruction is found. Another rule is to select the most dilated and congested coil of the bowel and follow it in the

direction of the increasing congestion and distention. In the most urgent cases no attempt should be made to find the seat of the obstruction but the abdomen should be opened under local anesthesia, and an artificial anus established in the presented, distended coil of the intestine.

Before or after dealing with the obstruction, particularly in late cases in which peristalsis is feeble or absent, the great distention should be relieved by incising one or more coils of the distention and allowing the contents to escape. The obstruction is dealt with according to its cause.

Chronic obstruction is generally due to limited adhesions, the treatment of which is the separation of the adhesions of the involved coils of the bowel, and if possible covering the raw surfaces with peritoneum.

In volvulus, it is necessary to untwist the loop of the intestine. In some cases it may be necessary to evacuate the distended bowel by puncture before this may be accomplished. If the gut is viable the puncture is closed with a purse string suture and the bowel replaced. By fixation of the bowel to the abdominal wall, a recurrence of the volvulus may be prevented. If the bowel is gangrenous it must be resected. If the patient's condition forbids this it should be brought out of the abdominal wound and an artificial anus established. Chronic volvulus should be resected.

Extra intestinal tumors such as cysts and abscesses may compress the bowel, as may also viscera other than the intestine, e. g., pregnant or retroverted uterus, floating kidney or enlarged spleen.

Treatment of a fibrous stricture of the bowel is resection and anastomosis. Spasmodic stricture of the bowel may be caused by lead poisoning or irritating intestinal contents, and trauma. Treatment is directed to the cause. Heat to the abdomen and large doses of atropine are of value in relaxing the spasm.

Foreign bodies including gall stones, enteroliths, pieces of gauze, etc., are removed by single enterotomy, although if the bowel is gangrenous or badly ulcerated it should be resected.

Benign tumors are fibroma, myxoma, lipoma and adenoma, usually project into the lumen of the gut as polyps, the treatment of which is to resect that portion of the intestine.

Intussusception should be first treated by enema and gastric lavage, if this does not relieve the condition, a laparotomy should be done, and

the telescoped portion of the bowel withdrawn. Chronic intussusception should be resected.

When a surgeon meets with a case of post-operative obstruction, he is indeed facing a rather strenuous crisis. In all probability the patient has just experienced an ordeal which has put his mental faculties to an extreme test, and then to have to submit to further operative procedures is an apparently almost unsurmountable barrier. This calamity is, fortunately, due to our wider knowledge of abdominal surgery, much more infrequent than formerly.

CONCLUSIONS.

1. Each case of intestinal obstruction is an individual surgical problem.
2. The possibility of rupture at the point of the obstruction must not be overlooked.
3. Difficulty may be experienced in making a diagnosis, especially in post-operative cases.
4. Definite diagnosis is not necessary before operative measures are begun.
5. Early diagnosis is the most important factor in the category.
6. One is too largely influenced, perhaps, in delaying operation in post-operative obstructed cases.

CASE REPORTS.

Two cases of adynamic ileus following operation:

Case I. First day after operation the patient was doing well. Temperature 99; pulse 108; resp. 16. Had no abdominal distention.

Second day. Temperature 100°, pulse 118, resp. 18. Some distention was noted. Enema returned clear with much flatus expelled. Patient vomited brown fluid.

Third day. Morning two enemas were given and considerable fecal matter returned with both, also some gas. Patient distended with gas to a moderate degree. When seen at 4 p. m., the patient wore an anxious expression and was extremely restless. Pulse was thready—150 per min., resp. 22, temp. 99. Extremities were cold and clammy.

Enterostomy was done under local anesthesia in patient's room. Condition improved at once, and patient had an uneventful recovery. Returned home 17 days after operation and is well today.

Case II. Patient with ruptured right tubal pregnancy removed got along very nicely for the first three days. At this time she vomited black vomitus. Enemas given returned with no results.

Stomach was washed out. On the fourth day the patient gave all the signs of obstruction. Enterostomy was done under local anesthesia. There was no vomiting after operation, and condition improved. Patient was discharged, well.

Case III. Two cases of chronic obstruction due to chronic inflammatory stricture.

A boy, 5 years, 3 months old, gave a history of attacks of colic since he was two years old. During attacks of pain morphine was given hypodermically. At operation a large dilated bowel presented which was delivered. The lower end of the bowel at the point of the obstruction was about the size of a lead pencil in diameter and gave the feeling of a rope between the fingers. Eighteen inches of bowel had to be resected in order to get fairly normal bowel. The patient made uneventful recovery, and left the hospital on the fifteenth day. At this time, which is three years since the operation, the child is perfectly well.

Case IV. A woman, 24 years of age, was operated upon for a stricture of the rectum two inches from external sphincter muscle. Operation was resection of the bowel with stricture including a good margin around growth. Several Wassermann tests were done, all of which were negative. Patient had a good recovery and condition permanently relieved.

Case V. An obstruction caused by a diverticulitis.

Patient had been complaining for 17 days with pain in abdomen. For the past three days has vomited everything taken by mouth, the last day vomitus has been fecal in character. Enemas returned clear. Operation was "Release of adhesions with drainage." Patient left hospital in good condition. Three months after operation patient reported in good health.

Case VI. Carcinoma of the pylorus.

A man, 50 years of age, giving a history of persistent vomiting, loss of weight. Physical examination was negative except a mass under costal margin just to the right of median line. Laprotomy was done and the pylorus with a growth the size of an orange was removed and a gastro-enterostomy done. Two years later patient reported well except for certain amount of indigestion.

Case VII. Case due to a band of adhesions.

Obstruction had continued for four days before entering hospital. Vomitus had been fecal

in character for the past two days. Operation was "Release of the band of adhesions." Bowel was very much discolored and mottled in appearance, so an enterostomy was done, and the bowel irrigated with normal salt solution. Patient returned home 22 days after operation. Up to date patient is in excellent health.

Case VIII. Obstruction due to a gall-stone.

Diagnosis was made before operation. A simple enterotomy was done. Patient had an uneventful recovery.

Case IX. Obstruction due to a piece of gauze. Enterotomy was done. Patient had a good recovery.

Case X. Volvulus of three days' duration which had become gangrenous. Bowel drained and brought out of the abdomen forming an artificial anus. Patient died 52 hours after operation.

PROPAGANDA FOR REFORM.

LIQUID PETROLATUM AS A LAXATIVE.—Liquid petrolatum is indigestible. It is not absorbed, and, therefore, cannot produce poisoning. In ordinary quantities the administration of liquid petrolatum does not seriously impair the alimentary efficiency. Like all laxatives used in very large quantities, liquid petrolatum may diminish the degree of utilization of food by promoting evacuation before the functions of digestion and absorption can be entirely completed. Liquid petrolatum may produce gastric distress and, therefore, should be taken in a way to interfere least with gastric digestion by administration before bedtime or an hour before meals. In reporting on a proprietary brand of liquid petrolatum widely exploited to the public, the Council on Pharmacy and Chemistry warned that constipation should be treated by dietary and hygienic means, as evacuants are but temporary measures. It further cautioned that liquid petrolatum is medicinal; it modifies greatly the intestinal flora; it acts as a lubricant and emollient; it modifies the absorptive powers of the intestinal mucous membrane; it is capable of influencing the digestion of fats; and, in short, liquid petrolatum is a drug, the indiscriminate and excessive use of which should not be encouraged. (*Jour. A. M. A.*, December 1, 1923, p. 1896.)

SPÄHLINGER TREATMENT FOR TUBERCULOSIS.—Spählinger is a resident of Geneva who received medical training but took his degree in law. Later he abandoned law for research work. The Spählinger treatment makes use of vaccine and serum therapy. The theories from which the treatment is evolved is that the tubercle bacillus emits different toxins under varying conditions of temperature, environment, etc. Many of these are claimed to be isolated as either exotoxins or endotoxins. The vaccines—of which there are said to be about twenty—are used for prophylaxis for treatment of the milder cases of tuberculosis and for the production of the various serums used in the treatment of the more severe cases. It has been reported that the British ministry of health is prepared to encourage the experimental trial of the Spählinger preparations under scientific supervision. The British Red Cross has appropriated money to enable Spählinger to work on a larger scale in the production of his preparations. The reports in regard to the efficacy of the preparations which have appeared in British medical journals are conflicting, and the Red Cross organization has made it clear that the products are in the experimental stage. (*Jour. A. M. A.*, December 1, 1923, p. 1896.)

"A" FORMULA OR "THE" FORMULA?—When the proprietary evil in the United States was at its worst, a common piece of advertising deceit was that of the fake formula. On its face, such a "formula" was impressive—at least to those who were not chemists. After the American Medical Association created its own chemical laboratory, the Association chemists demonstrated repeatedly the absurdity of the serio-comic chemistry of some of the pharmaceutical manufacturers. It was not long before the crude chemistry and cruder dishonesty of pharmaceutical concerns began to disappear. Yet today there are still a few firms which endeavor to lend plausibility to their wares by resurrecting old methods. The report of the Council on Pharmacy and Chemistry on Gly-So-Iodonate brings out that a formula, both qualitative and quantitative, appears on the label of the preparation. The formula is absurd and impossible, and the A. M. A. Chemical Laboratory found that some of the ingredients were not present in the amount claimed. (*Jour. A. M. A.*, December 22, 1923, p. 2118.)

The Journal of the Florida Medical Association

Owned and published by the Florida Medical Association.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of Congress of October 3, 1917; authorized October 16, 1918.

Published monthly at St. Augustine and Jacksonville. Price \$3.00 per year; 30 cents per single number.

Contributions for publication in this journal, whether scientific papers or reports of County Secretaries, should be typewritten.

Address Journal of the Florida Medical Association, St. Augustine, Florida, or 201-202 St. James Building, Jacksonville, Fla.

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NEW STUDIES OF SOME WIDELY USED DRUGS.

The *modus operandi* of some of the most useful and long valued drugs is still under debate. With the elevation of pharmacology to a dignified position among the medical sciences, a more critical consideration of reputed medicinal agents has been inculcated so that much of the dross of inherited beliefs is gradually being eliminated. This does not mean that so-called modern scientific medicine promptly waves aside all that it cannot explain, or that it ventures to discard as useless every reputed remedy that has failed to disclose a tenable mode of therapeutic action to the pharmacologic investigator. He would be rash, indeed, who overlooked or undervalued the great importance of empiric experience in therapy. How often has the newer knowledge merely confirmed the rationality of older practices that owed their genesis to circumstances in which ultramodern scientific considerations played no part whatever. Thus, the use of cod liver oil antedated by a century the discovery of fat-soluble vitamins. Pharmacology endeavors, rather, in many cases to test the alleged theories of pharmacodynamic action and to discard those that are proved untenable. Such destructive criticism often leads to progress quite as well as do more positive indications of physiologic potency. This may lately be noted in the study of a group of substances, notably salicylates, cinchophen, neocinchophen and related products, that find a wide-spread, growing application in therapy. The latest (1923) edition of *Useful Drugs*, prepared under the direction and supervision of the Council on Pharmacy and Chemistry of the American Medical Association, speaks of the drugs mentioned as "highly efficacious" and "exceptionally efficient" in the management of certain phases of arthritis. The assumption that the drugs exert an etiotropic action by destroying bacterial agencies responsible for the disease has repeatedly been disproved. They do not function as germicides, for example, in rheumatic fever assumed to be caused by micro-organisms. Recently, Hanzlik and Tainter¹ of the Stanford University Medical School have observed that the so-called antiphlogistic action of the drugs referred to, as exemplified in the prompt amelioration of the objective signs of

1. Hanzlik, P. J., and Tainter, M. L.: Comparative Antiphlogistic Effects of Salicylate, Cinchophen and Neocinchophen in Experimental Edema of the Head and Neck, *J. Lab. & Clin. Med.* 9:166 (Dec.) 1923.

inflammation, including the swelling and edema of the joints, is not due to a direct action on the inflammatory process. Experimental edema of the head and neck in animals was not beneficially influenced by previous and simultaneous treatment of the animals with sodium salicylate, cinchophen or neocinchophen in large doses corresponding to the clinical "toxic" dosage used in the treatment of acute rheumatic fever. Negative results with respect to antiphlogistic effects have also been observed in the treatment of other kinds of edemas. Consequently, the Stanford pharmacologists conclude that the beneficial therapeutic effects of these drugs in rheumatic fever appear to be produced neither through etiotropic nor organotropic, but rather through symptomatic action, the benefits being mediated through antipyresis and analgesia. It is always well to know precisely what may and what may not be expected of drugs.—*Jour. A. M. A.*

THE COMMON COLD, AGAIN.

The "common cold" is one of the commonest of diseases, and there are few about which so little of a definite character is known. From time to time there is a recrudescence of theories as to the causes of common colds; then comes the period of some special form of therapeutic attacks based on the newest hypothesis; whereupon the vaunted treatment falls into desuetude. It is unfortunately easy to secure "evidences" of efficacy for all manner of proposed reliefs for mild, self-limiting disorders. The cure follows; *post hoc ergo propter hoc*. The extreme enthusiasts for the alleged microbial causation of the common cold have no ear for other possible factors in its incidence; and consequently they must marshal all the antibacterial forces of medicine to combat the cold. Sometimes the superior direction is given to isolation; or again to local antiseptics, or finally to vaccine therapy. It is, however, admittedly a hidden foe that they are trying to subdue. Whether it may appear in the guise of a simple bacillus or in the more evasive form of a filtrable virus no one has really discovered. The cocksureness of the advocates of the theory of infection may be illustrated by a quotation from a recent popular estimate of the subject. "This much we are certain of already: that the majority of so-called 'colds' have little or nothing to do with exposure to a low temperature, that they are entirely misnamed, and that a better term for them would be 'fouls.' In fact,

this proportion can be clearly and definitely proved and traced as infections spreading from one victim to another. The best place to catch them is not out-of-doors, or even in drafty hallways, but in close, stuffy, infected hotel bedrooms, sleeping cars, churches, and theaters."¹

Let us admit promptly and frankly that it is not difficult to defend the infection hypothesis; and we may perhaps recall without prejudice that it was once defended for beriberi and for pellagra with comparative success. But a malady that entails so much human discomfort, gives such dangerous opportunities to secondary invasions, and interferes so often with personal plans as does the common cold deserves critical study. It cannot be dispelled or averted by off-hand pronouncements. Perhaps it will be worth while to listen to an occasional reactionary comment, such as Jordan² and his associates at Chicago have recently expressed. Statistical and laboratory data gathered by them from more than two thousand university students in different parts of the United States indicate to these investigators that the common cold is not a simple type of infection, perhaps in some instances not even an infectious process at all. They assert that numerous factors are undoubtedly concerned in the production of a cold; and their evidence does not support the view that a cold is always due primarily to the entrance of some virus from without the body. On the contrary it appears to them that internal body changes may be the more important factors. These changes are in turn associated closely with outside influences. This general conclusion is not out of harmony with the recently reported experiments of Olitsky and McCartney³ at the Rockefeller Institute for Medical Research, who have apparently produced typical symptoms in healthy persons by using as an incitant a filtrable agent obtainable from the nasopharyngeal washings of patients during the very early hours of the onset of a cold. For they also stated that transmission failed in cases in which the colds were caused by exposure to the elements, or chilling the body, and not by definite contact with other cases of common colds.

1. Hutchinson, Woods: Preventable Diseases, Boston, Houghton, Mifflin Company.

2. Jordan, E. O.; Norton, J. F., and Sharp, W. B.: The Common Cold, *J. Infect. Dis.* 33:416 (Nov.) 1923.

3. Olitsky, P. K., and McCartney, J. E.: Studies on the Nasopharyngeal Secretions from Patients with Common Colds, *J. Exper. Med.* 38:427 (Oct.) 1923; The Common Cold, editorial, *J. A. M. A.* 81:1697 (Nov. 17) 1923.

The Chicago bacteriologists have not hesitated to jeopardize the security of some further beliefs of the satisfied hygienists. "Resistance building" has been a favorite tenet in the prophylactic doctrine. The cultivation of an excellent physical condition through exercise, the habit of sleeping with open windows amid all rigors of climate, the frequent use of the cold bath—these are some of the practices expected to lessen the liability to respiratory disorders. Yet the Chicago statistics suggest that exposure to cold and the other lauded preventive measures are by no means as successful as they are supposed to be; nor do the data show that operations on the nose or throat result in marked reduction in the frequency of colds. Various investigators in recent years have failed to find any one species or group of bacteria to predominate in the upper respiratory tract during a cold. We may repeat our own earlier statement³ that evidently there are colds and colds. To this we may now add the conservative conclusions of Jordan, Norton and Sharp.² Whether or not a cold is the result of a specific infectious process is unknown. It is clear, however, that outside influences, particularly those involving the chilling of the body, may serve, they say, to induce a cold, even if these influences cannot be regarded as the most important etiologic factors.—*Jour. A. M. A.*

DEFECTIVE EYESIGHT.

Millions of school children are handicapped in their studies by defective eyes. Thousands of children are suffering from eyestrain and large numbers are forced to discontinue their endeavors to acquire an education because of this same physical defect. It has been proven conclusively that poor eyesight is an important associate cause of backwardness, stupidity, apparent laziness and truancy.

A survey of statutory provisions in the United States and Territories for testing the sight of school children has been made by the Eye Sight Conservation Council of America, Times Building, New York City. The results of the study are published in report form in Eye Sight Conservation Bulletin No. 4.

The report estimates that at this time the number of school children enrolled in the elementary and secondary schools of the United States exceeds 24,000,000, or over 20 per cent of the population. More than 60 per cent of this num-

ber are said to have eye defects of sufficient degree to warrant correction.

Even simple visual tests reveal 25 per cent with manifest defects and symptoms of eyestrain. Many are contending with vision so defective that mental development is seriously retarded and comfort, health and even safety are jeopardized. Fully 6,000,000 of our school children are at a disadvantage in their efforts to gain an education.

Conclusions set forth in the report, applying to the country as a whole, point out that there is a wide diversity in the provisions and regulations. It was found that statutory provisions for the examination of the eyes of school children have not been adopted generally by State Legislatures, and that only twenty states have statutes providing for eye tests. There are only two other states that have board regulations which take the place of statutes. In most instances general physical examination laws are not interpreted to include eye tests.

Most existing statutes are regarded as inadequate. In only thirteen states are the laws mandatory for all school districts. Separate sections dealing exclusively with eye tests are found on the statutes of but six states and in conjunction with tests for hearing in only three others. There is often a delegation of dual responsibility upon Boards of Health and Education or authority is not clearly defined. The necessity for keeping records and reporting results to a designated state department is generally overlooked. Suitable provisions are not made for training teachers, school nurses, or health inspectors in the methods of making tests.

The laws are not generally enforced. A systematic effort is being made to enforce the laws in only eight states. There is practically no state supervision in at least thirty-three states and four territories, and very little in seven others. A conservative estimate based upon an analysis of the returns would be that less than one-third of the school children of the entire country are receiving visual tests. The word "mandatory" has no significance in many instances.

The conclusions indicate that no law is required and generally that it is not the existence of laws but the disposition and proper appreciation of authorities for the need for eye tests that is responsible for the commendable work that is being done in a few states and in certain communities.

The report is published "as an argument that every state and territorial possession should recognize the importance of the care of the eyes of its future citizens, that tests for defective vision may be carried out advantageously by teachers in the schools with a negligible expenditure of time, money and effort; and that State Boards of Education should consider it their duty to approve and provide regulations, instructions and the necessary appliances and to so supervise the work that all school children shall receive the attention that is their right."

A program is recommended for state educational departments, local school authorities, educators and teachers. Every State Board of Education is urged to bring about the observance of an Eye Sight Conservation Day.

The responsibility lies with the State Board of Education, which "should issue mandatory regulations providing for the conduction of eye tests in every urban and rural school in the state." In nearly all states little is being done outside the larger cities. There is pressing need for eye conservation in the smaller towns and in the rural districts as a part of the general plan to improve country life. Cooperation of State Boards of Health is advocated.

A definite and concise program for establishing tests of eyesight on a state-wide basis is presented. Such tests will not be made throughout the states unless mandatory regulations are issued by the State Departments of Education.

Teachers are urged to observe periodically an Eye Sight Conservation Day. The council issues instructions which enable teachers to make visual acuity tests satisfactorily.

The report contains detailed summaries of the state provisions for eye tests and the extent to which the making of tests is being supervised by state authorities.

The facts upon which the report was based came from Commissioners of Education and Commissioners of Health of every state in the Union, the District of Columbia, the Panama Canal Zone, the territories of Alaska and Hawaii, and Porto Rico and the Philippine Islands.

INVESTIGATION OF RESPIRATORY DISEASES.

Surgeon General Cumming, United States Public Health Service, says that respiratory diseases such as colds, influenza and similar conditions are responsible for a great deal of

suffering, loss of time, disability and a not inconsiderable number of deaths. There are few, if any, individuals who do not suffer from some acute respiratory condition at least once a year, losing from a day to a week or more as a result, to say nothing of the miserable feeling which such condition entails. Some of these attacks develop into chronic sinus inflammations, middle ear disease leading to deafness, mastoid disease, occasionally meningitis, and at times a latent pulmonary tuberculosis is lighted up as a result of one of these acute disorders.

The United States Public Health Service is undertaking a detailed study of common colds and other minor respiratory diseases and influenza in an effort to gather morbidity data over a sufficient period of time and over a large enough geographical area to render these studies of value in attempting to prevent these affections. Comparatively little is definitely known as to the real causes, distribution, manner of spread, and epidemiology of these so-called minor respiratory ailments, nor of inter-epidemic influenza, because these diseases do not appear in ordinary morbidity reports. These studies are the first of their kind to be taken up on such a broad scale.

To collect these respiratory histories, both negative and positive, certain groups of colleges have been selected where active cooperation has been obtained by circularizing and enlisting the support of the students in reporting to the Public Health Service twice a month their respiratory experiences—whether or not they have had colds, bronchitis, tonsillitis, or influenza, for the two weeks' period covered by the report. Preliminary data are also collected relative to the incidence of influenza among those reporting, during the 1918 epidemic, whether or not they have been subject to chronic nose and throat trouble, the nature of underwear worn, ventilation of quarters during sleeping hours, and the like.

This work will be actively undertaken at Harvard University, Boston, John Hopkins Medical School, in Baltimore, Georgetown and Howard Universities, of Washington, Tulane University, of New Orleans, Ohio State University of Columbus, University of Chicago at Chicago, and the University of California at Berkeley. By this selection of colleges, groups of individuals living in all sections of the United

States will be enlisted and comparative studies made relative to the true occurrence of common colds and, among other things, influenza, at the places mentioned. It is hoped to determine the relation that the common cold bears to influenza.

It is anticipated that these studies will extend over a period of two or three years, and that the results will give a more definite idea of the epidemiology of respiratory disorders.

NEW AND NONOFFICIAL REMEDIES.

NATIONAL RADIUM EMANATOR.—A portable appliance for activating water with emanation; the emanation is emitted from a solution of radium chloride, barium chloride and sodium chloride. The appliance is claimed to produce 40 microcuries (150,000 Mache units) of radium emanation to 1,000 c.c. of water daily. The actions, uses and dosage of radium are discussed in *New and Nonofficial Remedies*, 1923, p. 255. National Radium Products Co., New York. (*Jour. A. M. A.*, December 8, 1923, p. 1953.)

IODOSTARINE-ROCHE.—**DIIODOTARTRIC ACID.**—An iodine addition product of tartaric acid, derived from the fruit of a species of *Picramnia*. Iodostarine-Roche contains 47.5 per cent of iodine. It acts in the tissues similarly to inorganic iodides. It is not broken up in the stomach, but a portion of the iodine is split off when it enters the intestine. The undecomposed portion is readily absorbed and, as in the case of other fats, is largely deposited in the tissues where it is slowly split up. The action of iodostarine-Roche is exerted more slowly than that of the inorganic iodides. Iodostarine-Roche is supplied in the form of tablets iodostarine-Roche 0.25 gm., and as chocolate tablets iodostarine-Roche containing iodostarine-Roche equivalent to iodine 0.01 gm. Hoffmann-LaRoche Chemical Works, New York. (*Jour. A. M. A.*, December 15, 1923, p. 2032.)

TETANUS ANTITOXIN FOR HUMAN USE.—**CUTTER.**—Tetanus antitoxin, concentrated (see *New and Nonofficial Remedies*, 1923, p. 284), marketed in syringes containing 1,500 and 5,000 units each. Cutter Laboratory, Berkeley, Cal.

DIPHTHERIA TOXIN-ANTITOXIN MIXTURE.—**CUTTER.**—Diphtheria toxin antitoxin mixture (see *New and Nonofficial Remedies*, 1923, p. 284), each c.c. representing 3 L+ doses of diphtheria toxin neutralized with sufficient anti-

toxin to conform to the toxicity requirements of the U. S. Public Health Service. It is marketed in vials containing, respectively, 1 c.c. and 50 c.c., and in syringes containing one immunizing treatment. Cutter Laboratory, Berkeley, Cal.

ANTI-ANTHRAX SERUM FOR HUMAN USE.—**CUTTER.**—An anti-anthrax serum (see *New and Nonofficial Remedies*, 1923, p. 287), marketed in double-ended vials containing 50 c.c. for intravenous injection. Cutter Laboratory, Berkeley, Cal.

RABIES VACCINE-PASTEUR (CUTTER).—An anti-rabic vaccine (see *New and Nonofficial Remedies*, 1923, p. 294), prepared according to the method of the Hygienic Laboratory of the U. S. Public Health Service. The emulsion from the cord is shipped daily and is diluted at the time of injection. The treatment consists of 21 daily injections. Cutter Laboratory, Berkeley, Cal.

DIPHTHERIA TOXIN FOR THE SCHICK TEST.—**CUTTER.**—A diphtheria immunity test (see *New and Nonofficial Remedies*, 1923, p. 323), marketed in packages of two vials, one containing diphtheria toxin and the other physiologic solution of sodium chloride for dilution. Cutter Laboratory, Berkeley, Cal.

CAPSULES CARBON TETRACHLORIDE (human use).—**P. D. and Co.**—A brand of carbontetrachloride-N. N. R. It is marketed in capsules containing 20 minims. Parke, Davis and Co., Detroit.

ELIXIR OF VERONAL.—Each fluid drachm contains veronal (see *New and Nonofficial Remedies*, 1923, p. 63) 2 grains in a menstruum containing alcohol 33.5 per cent. Winthrop Chemical Co., New York.

DIPHTHERIA TOXIN - ANTITOXIN MIXTURE (see *New and Nonofficial Remedies*, 1923, p. 284) containing in each cubic centimeter 0.1 L+ dose of diphtheria toxin neutralized with the required amount of diphtheria antitoxin. Marketed in packages of three vials, each containing 1 c.c.; and in vials containing, respectively, 10 c.c. and 20 c.c. of the mixture. E. R. Squibb and Sons, New York. (*Jour. A. M. A.*, December 22, 1923, p. 2115.)

SCARLET RED MEDICINAL—"NATIONAL."—A brand of scarlet R. medicinal Biebrich-N. N. R. For a discussion of the actions, uses and dosage

of scarlet R. medicinal Biebrich, see New and Nonofficial Remedies, 1923, page 275. National Aniline & Chemical Co., New York. (*Jour. A. M. A.*, August 18, 1923, p. 548.)

PUBLISHER'S NOTES.

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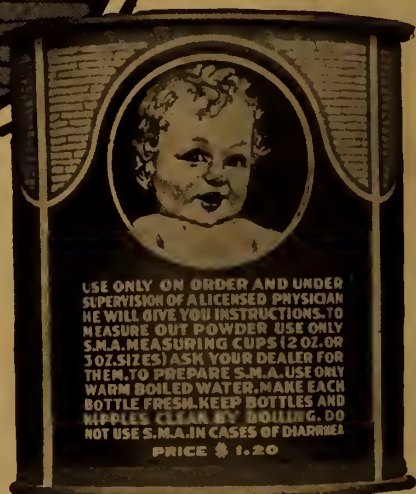


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THE JOURNAL

— OF THE —

Florida Medical Association

OWNED AND PUBLISHED BY THE FLORIDA MEDICAL ASSOCIATION

VOLUME X
No. 8

St. Augustine and Jacksonville, Fla., February, 1924

Yearly Subscription, \$3.00
Single Copy, 30c

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Volume X

St. Augustine and Jacksonville, Florida, February, 1924

Number 8

ORIGINAL ARTICLES

ENTEROLITHS, WITH REPORT OF CASE.*

HARRY A. PEYTON, M. D.,
Jacksonville, Fla.

Enteroliths or fecaliths of sufficient size to produce symptoms, aside from their rare occurrence, often present features of great interest due to diagnostic difficulties in their proper recognition.

As an instance of their relative infrequency, Boardman¹ quotes Fitz and Williams as reporting but 3 enteroliths in 713 cases of intestinal obstruction due to extraneous bodies, and Treves but 20 enteroliths in 1152 cases of intestinal obstruction due to various causes. Spellisy² reports one case of enterolith with a pin as a nucleus in a patient who complained of a dense mass in the right inguinal region simulating an irreducible hernia. Operation and recovery followed. Boardman¹ relates the history of a patient with the following symptoms: pain in epigastrium and back, acid regurgitation, profuse vomiting, loss of appetite, diffuse abdominal distention, flatulence, constipation alternating with diarrhoea, and loss of weight. Operation disclosed a fecalith $3 \times 2\frac{3}{4}$ in., at the junction of the descending colon and sigmoid, acting as a ball-valve. The patient recovered. Watson³ reports a very interesting case of a fecalith in a diverticulum of the jejunum which by its weight and consequent traction on the bowel caused an incomplete obstruction. Resection of 8 inches of the jejunum with recovery followed. The tumor was the size of an unhulled walnut, round, smooth. Terry and Mulger⁴ also report a similar

case of fecalith in a jejunal diverticulum causing intestinal obstruction.

On July 25, 1923, Miss S., age 16, entered Riverside Hospital complaining of pain in abdomen, fever and difficult urination. Except for typhoid fever 3 years ago and malaria, her past history is unimportant. Menstruation had been regular and painful with profuse flow. Two weeks prior to admission she had difficulty in urinating, fever, and pain in right leg. For the past week she had had pain over the entire abdomen; bowels moved with the aid of purgatives but she suffers with stubborn constipation. Vomits occasionally.

Examination showed a well-nourished girl of 16, crying with pain in bladder and rectum. Patient apparently acutely ill. Heart and lungs negative. On inspection the abdomen is moderately dome-shaped, with distinct bulging as from a tumor in the hypogastrium, extending somewhat into both the right and left lower quadrants. There is diffuse tympany and a firm, smooth, rounded mass can be palpated in the lower abdomen. The mass is movable to a slight degree. Vaginal examination disclosed a densely hard tumor bulging into the vagina, flattening the rectum and reaching almost to the umbilicus. It can be partially lifted from the pelvis. The cervix is small and is pushed to the left vaginal fornix. The bladder and urethra are displaced upward, and in order to enter the bladder with a catheter it is necessary to depress the end of the latter to a marked degree, showing that the course of the urethra is practically straight upward, with the patient in the reclining position.

Urine shows a few pus cells, hemoglobin 88 per cent, red blood count 4,040,000, leucocytes 9,800. Differential count: Polys, 81 per cent; small lymphs, 15 per cent; large monos, 1 per cent; eosins, 1 per cent. Malaria parasites were demonstrated. Wassermann negative. Stool showed no ova. On admission temperature 100.5, pulse 99, respiration 18.

*Read before Riverside Hospital Staff Meeting, November 20, 1924.

¹Boardman, W. W.: Enteroliths. *Am. Jour. of Roentgenology and Radium Therapy*, Vol. X, May, 1923, p. 369-373.

²Spellisy, J. M.: *Am. Surg.*, Vol. XLIII, p. 767.

³Watson, C. M.: *Surg. Gyn. Obst.*, Vol. XXXVIII, p. 67-71, 1924.

⁴Terry, W. D., and Mulger, F. R.: *Archives Surgery* 1921, Vol. II, p. 347-353.

X-ray examination (Dr. Shaw) July 26, 1923. Films show soft tissue shadow of a mass completely filling the true pelvis and extending upward toward the abdominal cavity. This appears slightly larger on the right side than on the left, and has a tendency to push the rectum posteriorly and the bladder anteriorly. The X-ray evidence is that of a soft tissue tumor mass, filling the pelvis and not diagnostic of any particular lesion. There are no calcified areas or organic material noted indicative of a dermoid cyst. Provisional diagnosis: hard fibroid tumor of uterus, or dermoid cyst.

The patient was given quinine and on the 5th day after admission laparotomy was done. The operative notes show the following: "The abdomen was opened by means of a subumbilical incision, disclosing a rounded tumor mass in the pelvis, jammed down between the uterus and rectum, and extending upward to a point about 2 inches below the umbilicus. The mass was quite hard and could be dented by pressure with the finger. The colon above the sigmoid could be seen to be enormously distended. The tumor was readily dislocated from the pelvis and on further examination it was seen to be within the descending colon at its junction with the sigmoid. The portion of the bowel below was edematous, thickened, not distended, and there was a small amount of yellow fluid in the cul-de-sac. There were no enlarged mesenteric glands. The conclusion reached was that we were dealing with an enormous fecolith. Incision was made over the tumor, along the longitudinal axis of the bowel, revealing a huge, hard accumulation of feces. The mass was removed intact and the bowel closed by three layers of sutures. A rectal tube was inserted in the rectum and guided past the line of sutures and left in place. A colostomy was then done, and a 16 F. catheter introduced with the tip in the lower ileum. The wound was closed without drainage."

Following the operation the patient's condition was poor during the entire post-operative period. Fever, marked distention and vomiting were present despite the fact that drainage from the rectal tube and enterostomy catheter was good. Blood transfusion of 300 c.c. of citrated blood was done on August 15th without apparent benefit. The patient died on this date apparently from toxemia and acute dilation of the heart. Autopsy was not performed.

DISCUSSION.

Dr. W. McL. Shaw: This case from the radiologist's point of view presents simply a mass simulating soft tissue, filling entirely the true pelvis, and extending slightly upward into the abdominal cavity. Its appearance was characteristic of no particular lesion, but presented a mottled, indefinite detail. No calcified area was noted, and there was no evidence of dermoid material present.

With the routine barium meal, three distinct findings may appear diagnostic of enteroliths. First, a dilated and elongated section of the bowel; second, a filling defect; and third, the outline of the enterolith itself coated with barium after the bowel has otherwise emptied itself. Barium enema study also is helpful, but I do not believe an enema could have been introduced into this colon. Barium meal study was not done in this case.

Dr. Edward Jelks: In thinking over the study and treatment of this patient there are two points which impress me most: the diagnosis and the surgical handling of the condition. In spite of the various methods employed to arrive at a diagnosis it seemed at the time impossible to distinguish this tumor from a tumor of the pelvic organs. My impression of it was that of a large, smooth tumor of the uterus or probably a firm ovarian cyst wedge in the pelvis. Barium meal and X-ray study, I think, would have cleared this up.

I have wondered if, after the tumor had been removed, a colostomy made proximal to the tumor would have given the dilated bowel a better opportunity to contract and empty itself. Through the tube, however, which was placed from below there was apparently sufficient drainage to keep the bowel from dilating. It is unfortunate that an autopsy could not be obtained to determine the size of the bowel.

Dr. Harry A. Peyton (closing): This case has been of particular interest to me on account of it being mistaken for one of ovarian or uterine tumor. It is difficult to see how a differentiation could have been made. Possibly a barium meal and X-ray study might have thrown some light on the diagnosis; on the other hand, in a patient as constipated and with the distress that this patient had it would not have been without a certain element of danger.

"HEREDO FAMILIAL CEREBELLAR SYNDROME," WITH THE REPORT OF A CASE.

H. MASON SMITH, M. D.,
Tampa, Fla.

That many cases of static and locomotor incoordination are erroneously diagnosed as tabes because of the similarity of the symptoms, especially the gait, which is, of course, caused by almost a similar pathological anatomy but by different types of degeneration, is my excuse for this brief paper and the presentation of this unique case.

It was about sixty years ago that the great Heidelberg clinician, Freidrich, described the disease which still bears his name. The most pronounced characteristic of this condition is its hereditary nature in certain families, in which we frequently see large numbers of the same generation effected, and in which the disease skips from one or two generations to break out afresh in another. The fundamental symptom of this disease is the muscular incoordination, which begins in the legs and later develops in the arms. As a rule, this disease is one of early life, usually beginning from six to fifteen years of age. Sometime after a child has learned to walk well, his gait is observed to become uncertain and awkward. This ataxia advances until locomotion by the patient is impossible and he then becomes bedridden.

The ataxia in these cases is the result of degeneration of the movement regulation tracts in the spinal cord, that is, the posterior columns and the spino-cerebellar tracts. Both of these systems conduct impulses of deep sensibility. One portion of these impulses are conducted by the posterior columns by the way of the optic thalamus to the cerebrum. The other portion passes by way of the direct cerebellar tract to the cerebellum, so the ataxia in Freidrich's disease is a mixed form of these two types. There are many symptoms peculiar to the disease with which we are not especially interested in this paper, as it is the pathological anatomy which is most important. There is one important condition in Freidrich's and that is the disturbances of sensation, which occur only in the very late stages.

In Freidrich's disease, the spinal cord is found to be smaller than it is in any other disease condition which has been investigated. According to Bing, the duration of this disease makes no

difference as to the size of the spinal cord and so he deducts that the small spinal cord is not an atrophy, but that it is a hypoplasia, so the degeneration of the columns is a consequence of an arrest of development. This degeneration effects first the posterior columns and the direct cerebellar tracts, and as the disease advances, it involves Grower's column and the pyramidal tracts. With this pathology in the spinal cord an ataxia is easily accounted for. A frequent Babinski shows an involment of the pyramidal tracts, but the fact that sensation is not disturbed is paradoxical.

It was as late as 1893, when an English physician, Senator, called attention to some cases in adults with the same pathology as we have described in Freidrich's disease and also with the additional pathology in the cerebellum, which is diminished in the same way that the spinal cord is diminished. The same year P. Marie attached the name of Heredo cerebellar ataxia to this condition. According to the description as given by these two clinicians, the disease usually begins after the twentieth year with a slowly progressive advancing unsteadiness in walking, and after a short period this unsteadiness involves the arms and sometimes the muscles of speech. In this condition there was sometimes symptoms of spasticity, such as ankle clonus and increased reflexes, but it is not imperative that either one of these symptoms exist.

The symptom complex differs in many important points from Freidrich's disease, but it has been shown that there is very little difference in the anatomical pathology, except that in the disease as described by Marie, there is more frequently a hypoplastic condition in the cerebellum. The reflexes, which are so often exaggerated in Marie's type and diminished in Freidreich's, are not a criterion of the disease but merely show as to whether or not the pyramidal tract is involved, as there have been brothers and sisters suffering from hereditary taxia, in whom the symptoms syndrome was the same except the reflexes were different. So this discovery bridges physiologically the boundaries by Freidrich's and Marie's ataxia and the etiology in both types is the same.

REPORT OF CASE.

Name: H. B., white, male, age 26, single.
Home Address: Jacksonville, Fla.
Temporary Address: Tampa, Fla.

Occupation: Traveling salesman (believed to be a bootlegger).

Financial Condition: Marginal.

Home Environment: Urban.

Referred by: J. C. Dickinson, Tampa, Fla.

Admits having taken cocaine habitually during the year 1915 and states that he did not take cocaine during the following years until the latter part of 1920 when he began using it and used it for a period of seven or eight months; states that he is not now on the drug.

Admits alcoholism to excess during 1914; was relieved of habit of drinking by treatment in sanatoriums on two occasions, but has been drinking continuously for some time and up to the present time.

Family History: Father living and well at age of 69. Mother living and well at age of 58. No brothers or sisters dead. Three brothers and two sisters living and well except one brother who is a victim of hay fever and who gives a history of loss of sight in one eye due to rupture of blood vessel, this occurring in his childhood. Neither parent alcoholic or rheumatic. One paternal uncle had stroke of apoplexy at age of 35. Three paternal uncles had locomotor ataxia. Three paternal cousins had locomotor ataxia. States that both his maternal and paternal relatives are inclined to be nervous.

Past History: Was healthy as a child except for chills and fever. Had a blow on frontal portion of head at age of five from which he was unconscious for three or four hours with no particular bad after-effects. At age of fourteen while swimming under water had a peculiar snapping feeling in occipital portion of head following which he was confined to bed for four or five days with dizziness, his mind being clouded for several weeks.

Had a fall in 1919 but received no head injury. In 1919 had attack of influenza which lasted for nine days after which he began having headaches. In 1920 again had influenza which left him with a feeling of exhaustion and with his headaches becoming more severe. States that in 1915 had a 4 plus positive Wassermann, following which he had several treatments with salvarsan and mercury. Has had many negative tests since and a 1 plus or suspicious reaction in 1917.

States that after his first attack of influenza in 1919 he had a lapse of memory, described as a lack of confidence in his mental powers and disinclination to go out alone, said condition having

lasted for some months. He then joined the Navy and was under observation in the Naval Hospital at the Great Lakes Training Station, Illinois.

Present Complaint: Violent headaches with weakness in legs.

Onset and Course: States that his headaches come on gradually, usually on both temporal regions, sometimes attended by throbbing in top of head and at times with a feeling of fullness in the head and a bearing-down sensation in the occipital region, which is painful. States that the headaches seem to be worse during his working hours but that he occasionally awakens at 3 a. m. with a severe headache. States that he at times suffers with vertigo and that the headaches are usually accompanied by a slight sense of mental depression. Gives an indefinite history of diplopia. Also states that at times has blurring of vision which is not adequately described.

Physical Examination: Fairly well nourished, white, male, whose normal weight is 138, present weight 122. Height 5 ft. 8 in. There are no evidences of gross physical conditions but patient has a somewhat anemic, flabby appearance, particularly of his arms and legs. Blood pressure 118/78. Has very thick growth of black hair on head; heavy black eyebrows joining over nose; heavy body growth of hair; masculine distribution.

Neurological Examination.—Station and Gait: Station is one of ataxia, more specifically described as a state of walking in a manner of mechanical balance with feet somewhat widely separated; with a dragging of the heels and hyperextension of the knee joints; with a manifestly greater degree of weakness in the left leg as compared with the right leg. Romberg test is very positive, even with feet well apart patient immediately falls to the rear and to left.

Tremors: Extended hands and fingers give coarse, persistent tremor—none of tongue.

Incoordination: FNT test—patient misses tip of nose $1\frac{1}{2}$ inches with each index finger. The knee-heel test is done imperfectly. Patient stating that he seems to know where his heels are going but does not put them in that place. There is no adiadokokinesia.

Cranial Nerves: There is no evidence of cranial nerve disturbance except a slight tendency toward internal squinting of the right eye. The motility of the eyes is O. K. No nystagmus. The pupils are mildly dilated, regular, equal and react

to light and accommodation promptly. (Attention is invited to attached report of ophthalmoscopic examination of eye grounds.) There is no evidence of constriction of field of vision and no evidence of hemianopsia.

Reflexes: The mandibular reflexes, biceps and triceps are somewhat exaggerated. The upper abdominals are present but obtunded on each side. Lower abdominals are present but obtained with great difficulty. The cremasterics are present and equal. The rectal reflexes are present. Bulbo-cavernos is present. Plantar reflex normal. No Babinski. Patellar reflexes are present but obtained only by diverting patient's attention and by re-enforcement.

Hypotonus: There is a marked condition of hypotonia of the upper and lower extremities, same being much more marked in the lower extremities. There is a lack of muscular power in the upper and lower extremities, same being much more marked in the lower extremities, particularly the left side. It is possible to unduly flex the legs on the thighs with the patient in a sitting position.

Paralysis: It is a matter of doubt as to the presence of atrophy of the thenar and hypothenar eminences. Some flattening is suspected. Tongue protrudes straight. There is no evidence of wrist or foot drop. The vasomotor reflexes are prompt and lasting.

Sensation: Sterognostic, epicritic and protopathic sensibilities appear to be normal, except there is apparently a retarded pain in impulse. There are no evidences of tenderness on pressure over principal nerve trunks.

Speech: There is no scanning or slurring on test phrases.

Mental Examination: There are no evidences of any psychosis—no deterioration of mind. Patient is very intelligent, cooperative and frank in examination.

Laboratory History: Electrical reflexes show greater contractibility in response to negative galvanism than to positive galvanism. There is a normal degree of galvanic excitability. Faradic stimulation shows normal response.

Blood: Wassermann, negative.

Spinal Fluid: Wassermann, negative; globulin, not increased; leucocytes, two per cubic millimeter.

TRAUMATIC RETRODISPLACEMENT OF THE UTERUS.*

M. PIERCE RUCKER, M. D.,
Richmond, Va.

One needs only to read the graphic account by Marion Sims¹ of how that pioneer in gynecology discovered the speculum that bears his name, to be convinced that there is such a condition as traumatic retrodisplacement of the uterus, although most of us may practice medicine a lifetime without seeing such a case. In fact, many writers² maintain that there is no such condition. The backward position of the uterus seems to be normal with many women. Stacy³, at the Mayo clinic, examined 1,000 multipara who gave no history of pelvic diseases and found 20 per cent of them with a retrodisplacement. Lynch⁴, in a series of 1,200 postpartum examinations made six or eight weeks after delivery, found a backward displacement of the uterus in more than 40 per cent. He was able to correct 72 per cent of these by replacement and pessary support.

Marion Sims' case was instantly relieved of intense suffering when the uterus was replaced in the anterior position. Stacy found 202 women out of 1,000 with the same position of the womb and entirely unaware of it. Forty per cent of the women who have borne children have wombs in a backward position and so little discomfort that it is difficult to get them back for a postpartum examination. What makes the difference in these two pictures? The position of the uterus is merely incidental. It is the interference with the circulation that causes the pain and discomfort. We have an analogous condition in uterine fibroids. The fibroid itself gives no discomfort, unless it be of extreme size, but a fibroid with a twisted pedicle causes intense suffering.

The situation that confronts the railroad surgeon is this: A woman passenger meets with an accident. An examination is made and the womb found in a retroposition. The chances are at least one to five that such will be the case. Possibly she is told that she will never be normal without an operation. Her lawyer pictures to

*Read before the Atlantic Coast Line Railway Surgeons at Orlando, Florida, January 17, 1924.

¹Sims, J. Marion: *Clinical Notes on Uterine Surgery*, New York, W. Wood & Co., 1866.

²Mock, Harry E.: So-called Traumatic Displacements of the Uterus, *J. A. M. A.* 79:797, September 2, 1922.

³Stacy, Leda J.: Ante-position and Retro-position of the Uterus, *J. A. M. A.* 79:793, September 2, 1922.

⁴Lynch, Frank W.: Retroversions of the Uterus Following Delivery, *Am. J. Obst. and Gynec.* 4:362, October, 1922.

the jury all the numerous operations that have been devised for this condition and likely gloats over their very number, as an indication of the uncertainty of a cure. His client, he tells the jury, has a condition that baffles modern surgery, all as the result of the carelessness of a heartless corporation.

In 1921 I was a witness in such a case. The patient was carried past her stop and was obliged to alight from the car on an embankment. The bottom step was some four feet above the ground. I had confined the patient several months before, and her lawyers put me on the stand to testify that I had discharged her in good condition, which I was very glad to be able to do. I can not give you an account of her symptoms, as I did not see her after the accident. From my notes, however, I can construct the following past history: In 1914, when the patient was 20 years old, she was operated upon and the appendix and left ovary were removed and a retrodisplacement of the uterus corrected. The patient married in 1915. The following February she aborted. In August, 1916, when I saw her for the first time, she was three months pregnant, and was suffering from an incarcerated uterus. The pregnancy was uncomplicated after this time and her confinement was normal in every respect. In September and October, 1918, she complained a great deal of weakness, nervousness and pain in the back. The least exertion tired her out completely. She menstruated sometimes twice a month and often passed clots. No pelvic examination was made at this time. In May, 1919, she was again pregnant. Her pregnancy was uncomplicated; in fact, she felt better than usual. Her labor was short and easy and her discharge examination on April 12, 1920, sixty-eight days after her confinement, showed her to be in good condition with an anteflexed uterus. In June she was complaining of pain in back and pelvis, and of some trouble in the rectum. She was nervous, and weak. Again she refused a pelvis examination. She spent a good part of the month in bed. In September she met with her accident. Pelvic examination revealed (so I am told) a retroverted uterus, and in due time the jury awarded her \$2,000 damages.

How are the conscientious railroad surgeon and the claim agent, and my experience is that railroad companies are perfectly willing to give the patient the benefit of any reasonable doubt, to know the rare case of real injury from the

normal or subnormal case that has met with an accident? It is on this point that I would particularly like to hear a full discussion. Marion Sims relieved his patient the instant the uterus went back in place. He does not so state, but I imagine the uterus was extremely tender, like a fibroid with a twisted pedicle. He does, however, state that the uterus remained in its correct position. I have searched every available textbook on gynecology for the symptomatology of this condition, and the only thing that I could find is that given by the late Dr. Gaillard Thomas⁵: "These remarks do not apply to sudden retroversion, the result of succession, in which variety the symptoms are marked and severe. The patient falls to the ground and is unable to rise, experiences the severest pelvic pain, suffers from suppression of urine and feces, and is often in such agony that the face is bathed with perspiration and the pulse becomes weak and fluttering."

616 Medical Arts Building.

⁵Thomas, T. Gaillard: A Practical Treatise on the Diseases of Women, Ed. 4, Philadelphia, Henry C. Lea, 1875, p. 376.

GLAUCOMA-SIMPLEX.*

W. HERBERT ADAMS, M. D.,
Jacksonville, Fla.

The presentation of a lengthy paper, couched in highly technical language, on any specialty, in my opinion, is entirely out of place at a meeting of this kind, composed, as it is, of men of every specialty, and general practitioners. This paper, I promise you, will be brief, and as free from technical phrases as possible.

Only my deep conviction that your attention should be called to this very common and very frequently wrongly diagnosed eye condition, causes me to bring this subject of simple non-inflammatory glaucoma to your attention at this time. I shall only mention the other varieties of glaucoma, namely acute inflammatory, secondary, and congenital glaucoma, or bupthalamos, and while they are of frequent occurrence, and of much importance, their recognition is comparatively easy, and the indications for treatment are very definite.

Chronic simple glaucoma, however, is very insidious in its onset and only too frequently it

*Read before the Fiftieth Annual Meeting of The Florida Medical Association, held at Jacksonville, May 15, 16, 1923.

is not recognized until it is too late for its treatment to be wholly successful. This disabling disease is of much more frequent occurrence than most of you, who have not had your attention especially called to it, have any conception. It is the cause of more cases of partial and total blindness in the adult than any other single disease of the eye. It is said to be more prevalent in the Jewish, Egyptian and Negro races, but I have found it very prevalent here in Florida among all races. Probably more frequent in the Negro races, in proportion, than in the white. It is rarely found before thirty years of age, and occurs more frequently between forty and sixty years of age. Men and women are attacked in about equal proportion. Some of the predisposing causes are: Age, hyperopia, especially if not corrected, small eyes, especially small corneas, constipation, violent or depressing emotional disturbances, etc. It is rarely seen in myopes. No satisfactory explanation of its cause, in all cases, has so far been made. The probability is that it may be caused in several different ways.

You all know that the eye has an anterior, a posterior and a vitreous chamber, and that the aqueous humor is secreted by the ciliary vessels and that the secretion is constantly being formed and passes out of the eye, chiefly through the small channel called Schlemm's canal, where it is taken up by the anterior ciliary veins. This canal is situated a short distance behind the corneoscleral margin. The borders of the canal are lined with a fine mesh-work of fibres, called the pectinate ligament.

Anything that narrows the calibre of the canal, or increases the viscosity of the aqueous humor, or increases disproportionately its secretion, may cause an interference with excretion, and if so, glaucoma or increase of the ocular tension is bound to occur.

This increase of tension soon causes a bending backwards of the lamina cribrosa, which is merely a network of fine fibres, through which the optic nerve enters the eye. This pressure on the optic nerve fibres soon produces atrophy, more common, at first, on the temporal side, but steadily increases until there is complete atrophy of all the nerve fibres. This, of course, produces total blindness.

The progress in this form of glaucoma is, as a rule, very slow, and may extend over several years before it eventuates in total blindness.

Owing to its slow onset, it rarely produces pain, and the external eye, to a superficial inspection, is practically normal. The anterior ciliary veins may be enlarged. The central or direct vision may be almost normal until a late stage of the disease. The patient may notice haloes around lights at night, and that he has to change his glasses very frequently, and even then, the vision becomes indistinct, difficult and uncomfortable. Of course, should the central vision become disturbed early in the disease, the patient is more likely to recognize that something is wrong, especially if he has only one sound eye. The disease generally affects one eye first; but practically always involves the other eye sooner or later. The loss of the field of vision, occurring first on the nasal side, is one of the most characteristic symptoms, but as this loss of vision in the nasal field is compensated by the other eye, it is not so quickly noticed as if it were on the temporal side. The field of vision at times contracts concentrically. The general medical man may recognize this disease by the following symptoms: The pupil of the affected eye is nearly always a little larger than is generally found in hyperopes of the patient's age, the tension is slightly increased, but this is not a constant symptom. The tension may be tested by palpating with the finger tips, over the upper part of the eye, through the closed lid, the patient having been asked to look down (illustrate method).

Of course, a tonometer furnishes much more accurate information as to tension than fingers, but the general practitioner, as a rule, is not familiar with its use, and does not possess a tonometer. The cornea may be slightly anesthetic, and the anterior ciliary veins are generally enlarged. Of course, an ophthalmoscopic examination will show the cupping of the disc more or less definitely, according to the stage of the disease.

The blood vessels may be seen bending sharply over the edge of the disc, and the arteries pulsating spontaneously, or are easily made to do so by slight pressure on the globe; the optic nerve is generally paler than normal. Then, by oblique illumination, the lens will present a greenish reflex—in fact, the name of this disease comes from a Greek word, meaning green, and the Germans call it "grauer star", meaning green cataract. This greenish reflex has somewhat the appearance of a cataract, and to the inexperienced observer, is frequently mistaken for a cata-

ract, and gentlemen, right here is where the fatal mistake of diagnosing these cases as cataract is often made, and what is of far more serious import to the patient, is the almost invariable advice that "nothing can be done for the eye until the cataract is entirely ripe, and the patient entirely blind," followed by the consoling advice that at that time the cataract can be removed and the sight restored.

It is difficult for me to restrain myself from very harsh criticism of any medical man, who makes this totally wrong diagnosis, and what is much more serious to the patient, giving him such fatally wrong advice. Even should the patient have a beginning cataract, he should be told that the cataract should be seen by a competent oculist at an early stage of the disease, if possible, so that the fundus of the affected eye may be thoroughly studied with a view to determine whether or not the retina is normal, so that when the cataract is mature, he will know whether or not its removal will restore vision. Furthermore, all cataract cases should be examined at rather frequent intervals, if convenient, for many reasons, which I shall not enumerate at this time. I feel very strongly on this matter of frequently mistaken diagnosis of simple glaucoma for cataract, and the usual proverbial advice. I have recently seen three cases of glaucoma-simplex, who came from distant parts of the State, to have their cataracts removed, having been told by their medical advisers that this operation would restore their sight. They had waited until they were totally blind, and beyond any help, whatever. I found that each one had absolutely *clear* lenses, and had no symptoms, whatever, of cataract.

To obviate such embarrassing occurrences for the oculist, who is obliged to tell the patient the true state of affairs, and in the hope that it may save some future patient such an unfortunate experience, this paper has been prepared and presented.

Concerning the treatment of this disease, I shall say only a word: It consists of general and local, medical and surgical treatment. Any refractive error should be fully corrected. Too much near-work should be advised against. Constipation, in my opinion, is a very potent factor in the cause of this disease, and must be continually guarded against. Plenty of sleep, and avoidance, as much as possible, of worry and depressing emotions. Sources of local infection

must be sought for and eliminated, if possible.

Operations: I shall mention only two, which in my experience have been the most satisfactory, namely iridectomy and trephining. Either one of these operations, properly performed, will frequently stop any further progress of this disease. Not treated, the disease inevitably terminates in blindness, with all its mental and physical distress, frequently reducing the patient to absolute penury, and causing him to be a liability instead of an asset to the community. I hesitate to give an opinion as to the number of blind and half-blind in this city, and in Florida, but I believe the number to be several hundred.

Gentlemen, if this paper shall cause you to look into this matter a little more carefully, and thus prevent any one of you from making this fatally wrong diagnosis, and help to preserve one individual's most priceless faculty, sight, I shall be amply repaid for presenting this paper, which I feel is very inadequately prepared and crudely presented, for your consideration.

A NEUROLOGICAL CASE HISTORY.

RALPH N. GREENE, M. D.,
Jacksonville, Fla.

The following case history is presented because of its interesting findings:

Mr. R. M. A., seen November 26, 1923. Present address, Delray, Fla. Referred by Dr. Roy Webb, Delray, Fla. Age 38. Nativity, Japan. Sex, male. Civil condition, single. Educational advantages, graduate of Cornell University in horticulture. Home environment, urban. Financial condition, marginal. Occupation, farmer. Denies venereal disease. Admits mild alcoholism prior to prohibition. Uses tobacco moderately, not addicted to the use of drugs.

Family History: Father died at age 49 because of accidental poisoning. Mother living and in good health at age of 79. No brothers living, no brothers dead. No sisters living. One sister died of organic heart lesion at age of 44. Neither parent alcoholic or rheumatic. Family history as to cancer, syphilis, tuberculosis, insanity, alcoholism, paralysis, gout, drug addiction and other contributing causes is negative.

Past History: History as to birth complications and childhood peculiarities is negative. Patient does not seem well informed. Childhood diseases negative. Adolescent diseases: Was sick for six weeks on account of some kind of kidney trouble at the age of 21. Cannot give any details.

Adult diseases, none. Surgical operations, none. Injuries, last June was injured in motor-cycle accident, suffered contusion of left shoulder without fracture. Not followed by paralysis and not complicated by loss of consciousness. Principal symptom following injury, pain. Has never been paralyzed. Negative history for convulsive seizures, fainting attacks or loss of consciousness, headache or vertigo. Has never experienced visual disturbances and is negative for blurring of vision or diplopia. Has never had pus infection of ears. Has not suffered particularly with sore throat. Negative history for swelling of feet, face or hands. Has never had digestive disturbances; has never vomited blood. Appetite is good. Thirst is normal. Not constipated until recently. Has never been jaundiced. Has never had appendicitis, gallstone or kidney colic. Some years ago suffered mildly on account of hemorrhoids. Has never passed blood in stools. Has never had diarrhoea or dysentery. Urinary symptoms, negative for pain or blood. Has never lost control of bowel or bladder movements. Negative for typhoid, malaria, diphtheria, smallpox, scarlet fever and rheumatism. Normal weight 116, present weight 118 pounds.

Present Complaint: Pain in left shoulder and muscular weakness in left arm and leg, and inability to differentiate heat and cold on right side with hyperesthesia on right side.

Physical Examination: Well-nourished individual, whose posture appears to be somewhat spastic and inclined towards being hemiplegiac. Pulse 78. Temperature 98.2 F. Respiration 16. Blood pressure, systolic 120, diastolic 90. Teeth are in fair state of preservation. Tonsils bilaterally infected and of the submerged type. Tongue negative. Nose negative. Ears negative. Sinuses transilluminate normally. Cervical, epitrochlear and inguinal glands are not enlarged. Left arm and forearm show distinct atrophy. No evidence of atrophy of small muscles of hand. Left leg slightly atrophied. Heart shows normal position with maximum point of cardiac impulse normally placed in fifth interspace. No murmurs heard. Lungs expand normally. Vocal fremitus normal and in general no adventitious sounds or symptoms noted in examination of lungs. Abdomen is well nourished, but covered with numerous small oval scars; scars also being present over spine, and resultant from counter-irritant treatment while a child in Japan. There are no masses or tender points noted in abdomen. Spleen

is not palpable, liver not felt; apparently not enlarged. Kidneys not felt. No evidence of hemorrhoids. Joints appear to be normal. Genitalia normal.

Neurological Examination: Has spastic posture slightly stooped forward and in walking slightly hemiplegiac. The pupils are fusiform in shape, react to light and accommodate properly. Ophthalmoscopic examination of eye grounds reveal normal fundi. There is no evidence of muscular imbalance; no nystagmus. There is absence of scanning speech. Cranial nerves negative. Mandibular reflex present. Biceps and triceps reflexes present, but markedly diminished on left side. Upper and lower abdominals present on right side, absent on left side. Vasomotor reflexes prompt and lasting. Cremasterics present on right side, diminished on left side. Patellars present but increased on left side. Plantars normal. There is slight ankle clonus on left side. Babinski sign and Romberg symptoms absent. There are no trophic disturbances. There are no tics or tremors. Patient is unable to differentiate heat and cold over the right leg, thigh and right side of body, right arm and forearm. The lowermost portion of the brachial plexus seems involved. Upon being touched with tube containing warm water complains bitterly of pain. Differentiates heat and cold normally on left side. Epicritic sensibilities are impaired on left side; normal on right side. Pain responses are markedly diminished on right side, normal on left side. Vibratory sensibilities particularly absent on right side, normal on left side. Stereognostic sensibilities unimpaired. There is no evidence of tetany. Electrical reactions not taken.

Mental Examination: Insight, memory and judgment unimpaired. No history of psychotic episodes and apparently has no delusions or hallucinations. Has normal social attitude. Is mildly and normally depressed.

Laboratory Findings: Blood Wassermann negative on both antigens. Spinal fluid not obtained. Urine amber color. Specific gravity 1015. Phosphates present. Negative for albumin, sugar and indican. Freshly voided specimen is alkaline in reaction. Microscopic examination reveals few pus cells, few epithelial cells, many cylindroids, many coarse, granular and hyaline casts. Differential leukocyte count, in three hundred cells counted: Polys, 79 per cent; large monos, 5 per cent; small monos, 10 per cent; eos., 3 per cent; transitorials, 1 per cent; lym-

phocytes, 2 per cent; red cell count, 4,555,000; white cell count, 10,650; hemoglobin, 90 per cent; color index, 1 per cent. Feces and sputum not examined.

Diagnosis: Undetermined. Cord tumor. Lesion of servical portion of spinal cord or syringomyelia.

Treatment Recommended: The patient, upon being informed of the serious possibilities in his condition, was desirous of returning to his home in Salt Lake City, Utah, and was advised to consult Dr. Peter Bassoe in Chicago, who was likewise unable to complete an adequate neurological study, and he in turn referred the patient to Dr. M. C. Lindem, Salt Lake City, Utah, after which nothing further has been heard from the patient.

It is manifestly evident that, with the symptoms as presented, antero-postero and lateral stereoscopic X-ray plates of the neck should be made in order to eliminate actual injury to the bony structures of the cervical spine.

Blood Wassermann, which is negative, does not eliminate the question of syphilis of the central nervous system, and for this reason careful examination of the spinal fluid should be made in order to determine the presence or absence of xanthochromia, which substance might be present with cord tumor; and also to determine by cell count, globulin estimation and Wassermann reaction of spinal fluid, the possible presence of syphilis of the central nervous system. The lumbar puncture should preferably be done by the method of a compression of the jugulars and measuring manometrically the pressure before and after compression of the jugulars to determine, if possible, the presence or absence of spinal block. Puncture of the cisterna magna would also be a justifiable procedure.

This case apparently presents a condition of an atypical Brown-Sequard syndrome. Whether this lesion is inflammatory, neoplastic or degenerative is impossible to state. The uppermost level is probably at about the fourth cervical, and rather intramedullary than extramedullary.

In order to get a more definite diagnostic conclusion in this particular case it would be necessary to know the precise chronological order of appearance of symptoms. Unfortunately it was impossible because of the apprehensive state of the patient, and the painful perversion of sensibilities, to obtain satisfactory electrical examination. Repeated sensory examinations, pref-

erably by two independent examiners, would be advisable, and particularly sensory examination after lumbar puncture, with comparison of results with those obtained before puncture, might aid in clarifying the diagnosis.

The case emphasizes the necessity for careful neurological investigation of patients presenting neuritic symptoms, for the reason that subjective symptoms are misleading until more clearly demonstrated in a routine neurological examination.

After the above case history was written a letter has been received from Dr. Martin C. Lindem, Salt Lake City, Utah, under date of December 19th, as follows:

"Mr. R. A. was referred to me by Dr. Peter Bassoe, Chicago, on December 3, 1923. Dr. Bassoe made tentative diagnosis of spinal cord tumor as a first probability, a syringomyelia as a second probability, situated between the fifth cervical and the first dorsal vertebræ, with the recommendation that a lumbar puncture be performed and excluding certain inflammatory conditions that an exploratory laminectomy be performed. The physical findings were practically the same as those noted on your chart sent me by Dr. Bassoe, with some progression, and almost complete paralysis of the left upper extremity with a typical Brown-Sequard syndrome. I append a copy of the laboratory findings and the operative findings at the laminectomy which I performed on December 11, 1923.

The patient is convalescing nicely from the operation and is beginning to move his left arm a little, while his pain symptoms are relieved.

Laboratory and operative findings: Spinal puncture; fluid apparently not under increased pressure. Pressure varies with position, fluid is clear. Serologic report: Spinal fluid; cell count 4 per cubic millimeter; globulin increased; colloidal gold 0123432000-0. Wassermann negative. X-ray report: A. P. view shows slight irregularity of outline of transverse process, right side, sixth and seventh cervical vertebræ. Lateral view shows some slight alteration in density of bodies of the fourth and fifth cervical. Insufficient evidence for positive opinion as to existent pathology. See above.

December 10, 1923.—Following lumbar puncture patient had an exacerbation of pain in the neck region and the paralysis of the left arm has become almost complete. Flexion at the elbow an arc of about fifteen degrees when held at right-

angles. No movement of shoulder joint. Fingers paralyzed.

December 11, 1923.—Operative report: Operation performed at St. Mark's Hospital. Ether anæsthesia. Benzine and iodine preparation of the skin. Right, curved, paramedian incision, exposing the ligamentum nuchi attached to the spines of the first thoracic to the fourth cervical vertebræ. The muscles are separated in the median plane and the laminæ exposed with a sharp periosteal elevator. Moderate amount of hemorrhage controlled by hot packs. The spines are cut away and the laminæ bitten away with a ronguer, exposing the cord in the spinal canal. The epidural areolar tissue is fibrous in character and adheres to the bone and the dura. Palpation of the cord reveals a soft, doughy region opposite the bodies of the fifth and sixth cervical vertebræ. The cord above and below this level is normally firm. On incising the dura mater of the spinal cord a great deal (about 75 c.c.) of cerebro-spinal fluid escapes under pressure. Following this the doughy mass in the cord disappears and the region between the levels described as normal collapses so that the cord is flattened, soft, and only about half normal thickness. The inner surface of the dura is adherent by fibrous adhesions to the piaarachnoid over the entire area of softened cord, that is, posteriorly. The cord is lifted on an iris hook and freed from all its adhesions. The dura is closed by a continuous suture of catgut, the muscles are closed in two layers with catgut and the skin with interrupted stitches of dermol. The operation lasted one hour and thirty minutes, the patient's pulse was never over 80, breathing was easy, and he was at no time cyanotic. Patient was returned to the ward in excellent condition. There was no evidence of shock. A portion of the epidural areolar tissue is saved for microscopic examination.

Post Operative: December 11, 1923, 8 p. m., operative day. Fully conscious. No paralysis. Considerable pain. Voided five ounces urine. Takes fluid. Pulse, 130. Temperature, 100.

December 12, 1923. Temperature, 101. Pulse 120. Morphine required to control pain in supraclavicular region. Fairly comfortable and asks for food.

December 13, 1923. Temperature, 99. Pulse, 100. Aspirin grains, 10. Pyramidon grains, 5; controls pain. Had one hypodermic of morphine during night.

The findings of Dr. Lindem confirm the diagnosis of syringomyelia, involving the cervical portion of the spinal cord.

THE ABUSE OF THE MAXILLARY ANTRUM.

B. F. HODSON, M. D.,
Miami, Fla.

I make no apology for this short article that only attempts to convey one idea, not quoting a score of authorities that are familiar to every reader of medical literature, or to prove it by a page of statistics, that are not always interesting, even if correct.

The one idea I wish to convey is really a protest against the abuse of the maxillary antrum by a few dentists. Apparently these men see a golden indication for invading the above named cavity, although they would have us, as well as the patients, believe that all infected antrii are due to some pathological condition of the teeth or alveolar process. The antrum of Highmore is pyramidal in shape, with the base to the side wall of the nose, the apex at the malar process of the superior maxillary, it is bounded above by the orbital plate, in front by the canine fossa, and posteriorly by the ptery-gomaxillary fossa.

The average size of this cavity is 40 mm. in height, 30 mm. in breadth, and 35 mm. in depth, but varies with age, sex and size of patient.

The nasal wall is the most important from the standpoint of the rhinologist, the alveolar boundary, or process, to the dentist (from the first premolar to the third molar) as the second premolar and the first molar are in close contact with the floor of the antrum.

The nasal wall is the thinnest, and easiest place of attack, either for diagnostic, therapeutic, or surgical purposes. The canine fossa being the next most vulnerable point. Granted that 75 per cent of antrum troubles are due to infection from the nasal cavity, why should anyone persist in opening the antrum by extracting a tooth (sometimes a sound one), and puncture through the socket into the antrum and continue to irrigate day after day, and for weeks in some cases, until a permanent opening is established that is difficult to close with constant reinfection going on from the bacteria in the mouth?

About two months ago a patient was brought to the office because a portion of his food came back through his nose during mastication. On

examination I found an opening through the alveolar process (where the first molar tooth had been extracted) the size of a large goose quill, surrounded by extremely dense fibrous tissue. The tooth had been extracted for the purpose of opening and draining the antrum. The treatment had consisted of irrigations, packing, and applications of silver nitrate, for nearly three months.

Now this is only an extreme case of what may result, when such asinine treatment as opening the maxillary sinus by extracting a tooth that does not extend into the antrum, and then go on and puncture through the tooth socket into this cavity for an infection that has migrated or extended by continuity of tissue from the nasal fossa.

It sometimes happens that a tooth protrudes into an abscess in the antrum, and pus follows the extraction of the tooth. In such cases it is perfectly justifiable to irrigate through this opening with normal salt, permanganate, or Dakin's solution. This treatment, however, should not be continued indefinitely. If at the end of a week or ten days the discharge has not subsided and the opening ready to close, the case should be turned over to the rhinologist, or referred to him for consultation.

This method is not usually followed, for the monotonous irrigation through the tooth socket is often maintained day after day, even weeks, or the wound may close with an infection left in the antrum. The patient is then allowed to perambulate among his fellow creatures with an indescribable foul breath, or *ozena* may develop, or the patient may later on require a radical operation on the antrum, all of which could have been avoided by proper drainage and treatment through the nasal wall in the early stage of the infection.

In conclusion I would sum it up thus:

That probably 75 per cent of all acute infections of the antrum are due to pathogenic bacteria in the nasal fossæ, invading the antrum by way of the natural opening in the nasal wall of the maxillary antrum. And that 50 per cent of all chronic infections of the antrii, suppurative or non-suppurative, are due to the same cause. That most cases of persistent foul breath and *ozena* are due to a chronic suppurative or non-suppurative infection in antrum. That if openings are made into the antrum through the alveolar process by way of a tooth socket do not

clear up the infection promptly, than a counter-opening for drainage should be made through the nasal wall at the lowest point on the floor of the nose. That, in my humble opinion, the maxillary antrum is exclusively the field of the rhinologist, except in such cases where the palatal process of an infected molar penetrates the antrum.

THE FAKER.*

L. S. OPPENHEIMER, M. D.,
Tampa, Fla.

The bent of the average man and woman to acquire money with the least possible effort, regardless of service, merit or reciprocity, is in evidence in every-day life and in all classes, but in no field is it so glaring as in that of claimants against corporations, and more especially railway and street car companies, where the individual lays aside his conscience like an old glove in order to make "easy money," and where the claimant's lawyer helps to educate and foster this inherent weakness of human nature by encouraging and accepting every case regardless of its justice.

The professional training of the lawyer's psychology places his conscience subsidiary to his manipulation of the law. In this regard he is the moral superior of some doctors whose professional psychic training has been free from the warpings of truth, but who nevertheless espouse the views and desires of any patient soliciting their help, and readily become the willing tool of the claimant and his lawyer.

None of us should boast of being invulnerable to the mild-mannered man or the pretty woman, whose pleadings and tears melt us into pity and credulity. The well-known susceptibility of the average jury to sympathize with the plaintiff and surrender before the pleading oratory of his lawyer, are corporation aphorisms. As stated by one of our surgeons, he so often witnesses unfairness in claimants, that involuntarily he suspects every one of those that come to him of malingering.

On the other hand, it is very poor judgment for the attending surgeon to forget his diplomacy by showing any evidence of suspicion, thereby provoking a militant attitude on the part of the claimant.

*President's Address, Association of Florida Railway Surgeons, Jacksonville, 1923.

Many terms might appropriately be applied to these claimants: faker, malingerer, imposter, crook, fraud, simulator (conscious and unconscious), disabiteer, neurasthenic, hysteric.

The detection of these often requires more ingenuity than the average physician possesses. And it is to the doctor's moral credit that he makes no boast of incredulity or cunning to lower him to the detective standard. Indeed, in his daily relations with humanity's appeals, he illustrates the profession of him who said, "I would rather believe in the honesty of all mankind and be deceived from time to time than to believe in universal depravity and never be deceived." But the doctor should know that these methods exist and how he can best aid in frustrating them.

The following cases represent some of the extremes to which these fakers will go:†

CASE 1.—Told by a witness: "Three people, a woman and two men, on a crowded railway platform, who seemed to be crowding unnecessarily close as the train came up. As the passengers were coming off we saw the woman suddenly fall in a heap on the platform, rolling over and over and groaning and crying that she had been pushed off the train. The two men came up and began to explain what they saw, etc. I sought out the station master and related what I saw. He gathered the name of witnesses, and made memoranda.

The woman, a Mrs. McDonald, brought suit for \$20,000.00. The detective department had in the meantime gotten busy and run down the gang, five of them, and put four under arrest. They had operated in three other cities—Erie, Pa., Cleveland, Ohio, and another city. They had collected damages in two cases. The one in Erie had been appealed. They were all convicted and sent to jail for varying terms.

CASE 2.—Reported by Dr. E. P. Lacey, Chief Surgeon Woodward Iron Co., Bessemer, Ala.: A tram car broke loose on the tippie of a coal mine, ran down the slope, jumped the track and hit a miner on the back of the head, inflicting a bad lacerated wound four or five inches long. Pronounced concussion, from which he slowly recovered.

He complained of great weakness, and was unable to walk without crutches. I had reason to believe that he was having frequent conferences with a lawyer, by whom he was being thoroughly

coached. On testing his reflexes he would get confused and forget the answers and symptoms he gave at a previous examination.

The company had agreed to pay his regular salary during disability.

His wife was keeping boarders. Some weeks after the accident one of them went to town and returned very much intoxicated. My patient was still using crutches and said it was impossible for him to walk without them. The intoxicated boarder entered the room, drew his revolver and began shooting at every one in the room. My patient forgot his crutches and quickly led the procession away from the zone of danger. His disability and his claim ended there.

Hernias, sprains, etc., claimed to have been produced for the first time, have frequently been detected as the trade of old frauds who changed their surnames and got damages from former companies for the same condition.

CASE 3.—A man and wife were going down the aisle of a car to get off at a station. The woman slipped and fell. She claimed she slipped on a banana peel. The husband said he threw the peel out of the window. She said she struck her back against the arm of a seat. Examination at the hotel revealed a severe discoloration in the lumbar region. Suspicions were aroused by claim agents. Negotiations for settlement dragged on. The husband disappeared. The wife was discouraged, and confessed it was a premeditated affair; that she had tied a knotted cord around her waist next to the skin and discarded it before examination was made. They had often worked the trick successfully.

CASE 5.—A young man alighting from a street car was thrown from the step by the sudden starting of the car before he was off. Struck on his pelvis with considerable force. Was unable to stand up. X-ray negative. Two weeks after was still unable to walk. Another X-ray picture by a radiologist showed probable fracture of the descending ramus of the ischium. Various appliances were used with little success. Four or five weeks after, the company paid him \$1,000.00 on the advice of three physicians. Next day he was down town walking without crutches or limp.

CASE 6.—In January, 1922, a switchman lost his hand by falling from a freight train going about twelve miles an hour. He walked to a hospital in the vicinity where he was treated. He claimed he was climbing up the side of the car

†The writer is under obligation to the General Intelligence Publishing Co., of Dallas, Texas, for several of these reports.

when the top hand-grab gave way and he fell between the cars, the wheels of one of which passed over his left hand.

His contradictory statements of the accident and other circumstances connected therewith caused the claim agent to make some extensive investigations. It was noticed at the hospital that he had not lost his spectacles nor his hat, and that his clothes were not soiled. An investigation of the grab-iron showed that one of the screws had been unscrewed and removed. The following pertinent facts were developed in his history during the few years prior to the accident: He was a trouble-maker, a neurotic; had talked of committing suicide. In July, 1921, he sprained an ankle on jumping from a moving train. Claim was not allowed. In September he fell from a box car that was standing still and hurt his kidney badly. Was taken to a hospital and treated. It is believed that he here conceived the idea of losing his hand. In December he took out accident insurance for \$1,500 for the loss of life or limb. In January, 1922, he lost his hand, collected the insurance and sued the railroad company for a large sum.

CASE 7.—A young man lost both legs by being run over by a train in Montana. He was given judgment by a jury for \$5,000.00, but the case was reversed on appeal by the company, no liability having been proven. He got a pair of artificial legs and filed another claim against the road, who, to dispose of his case, paid him \$1,000.00. He worked the railroads from coast to coast, slipping on obstacles, rough handling, falling from trains, etc. His best stunt was worked in Montana and Texas. In Texas he bought a ticket at night from one station to the next, knowing that a junction existed between the two. When his ticket was called for he claimed to have lost it with his pocketbook. The conductor put him off at the junction. He was found at 4 a. m. next morning lying at the side of the track, face bloody, with artificial legs broken, and complaining of injury to his back. The crew found his pocketbook and ticket in his pocket. He claimed that the conductor would not give him time to find his ticket and that his injuries were caused by the train starting before he could get off. When confronted with records of his former "accidents" and "tricks" under different surnames, he admitted that the last accident was premeditated and he broke the legs himself over the rails and feigned unconscious-

ness as he wanted to get even with the railroads because he had failed to collect his original judgment.

CASE 8.—Ununited fracture of right internal malleolus. Man had collected from insurance companies, railroads and street car companies, at various times; collected from street car company twice by changing his name—once as an employee after a few weeks' connection with the company, and once as a passenger.

CASE 9.—A young man who had once sustained a fracture and dislocation of the wrist, worked various stunts on railroads and street car companies. His main stunt was permitting windows to fall on his wrist and claiming they were defective. The fastenings were always found so, but giving positive evidence of having been tampered with. He is now serving a two-year term in the Texas penitentiary. Evidence was shown that he had practised this successfully twenty-seven times.

CASE 10.—Reported by F. Brown, Seaboard Air Line claim agent: A Jacksonville negro, an employee of the Michigan Ice Co., played the same trick as case 9 last year on the Seaboard Air Line, Atlantic Coast Line, Louisville and Nashville and other southeastern railroads. He had the power to dislocate two of his metacarpophalangeal joints at will. He was at last "railroaded" for a substantial term to the state hospital where he might reflect in seclusion over his past railroad friends and the ignorance of doctors.

CASE 11.—A man who was able to dislocate and reduce his shoulder at will. Has made a handsome living out of his talent for many years, North and South, by falling from trains, street cars, slipping on banana peels, etc. The doctors usually had difficulty, he said, in reducing his dislocation, but he had none whatever. They were likewise unable to determine whether his dislocation was genuine or self-induced. He frequently changed his surname, but retained the same initials. This brought about his detection.

CASE 12.—A man was found at a railroad crossing after daybreak with a section of running board from a freight car across his back, pinning him to the ground. He claimed that while he was waiting there for the freight train to pass, that the board flew off and knocked him down. He claimed to be badly hurt, although no signs of injury could be found. A piece of the

running board was found missing from the freight car as claimed. The company made a small settlement with him and just two weeks after he was found in an adjoining state at a railroad crossing, but this time the entire running board was over his back. He was arrested and lodged in jail. His method was to ride on the box car, remove the running board, and get off near some railroad crossing with the board.

CASE 13.—Geo. A. Callicotte, brakeman, fell from the side of a car in the yards. The engineer leaning out of his cab saw him fall and ran to his assistance; found him apparently suffering great pain. In his hand he held the grab-iron which it was later contended had pulled loose because of the rottenness of the wood. Pains in back and inability to move were the complaints. A few days later a law firm came into the case—a suit for damages—they were to get 40 per cent of the verdict. Thirty days after, the doctor said paralysis had developed. They sued for \$100,000.00 for complete and permanent paralysis.

A report came into the possession of the company's lawyers that he was walking daily disguised in his wife's clothing. They could not prove it.

The case came into the courts six months after. The man was brought in on an invalid chair. Physicians applied the usual tests for reflexes, sticking pins into feet and legs, etc. All were indicative of paralysis. The company surgeon, however, maintained that as there was no atrophy of either leg, the muscles being round and firm, he did not believe it was a bona fide paralysis, but the plaintiff's doctors said it was genuine and would prove permanent. He was awarded \$18,000.00, from which the company appealed to the Supreme Court.

A month after a secret service company sent H. H. Germaine, of Chicago, and three aides to work up the case. They quartered in an adjoining house and watched night and day. They saw his lawyers and doctors enter the house and converse with the man disguised in a kimono while walking the floor. At 10 a. m. a supposed woman with a shawl over her head came into the Callicotte yard. The officers leaped over an intervening fence, caught the disguised man and had him photographed with his disguise.

His condition of "paralysis" had been produced at opportune times by the doctors making intraspinal stovaine injections. The grand jury

indicted him, his two lawyers, his doctor and his brother for perjury.

CASE 14.—A man in Oregon, in 1906, sustained an injury to his back which resulted in some form of paralysis. About once every year or two until 1915 he had a similar accident in a different town or state, and under a different surname and got damages each time. On December 7, 1915, he was on crutches and got his money. Next day he left town without a limp. The General Intelligence Publishing Co. worked up the evidence against him, caught him, and had him put into the penitentiary for two years. On getting out, he tried the same stunt on two railroads. On being confronted with his pedigree he promptly left for parts unknown.

Claims for miscarriages, etc., have been made by women who had undergone hysterectomy, by others who were not pregnant, by still others who were hurt during the early months of pregnancy and were delivered at full term of a mature, perfect but still-born child.

These are but a few types of fraud. Although some of them have not been successful, similar cases easily mulct companies before being detected. The camera, female detectives, willing neighbors and shrewd claim agents are company requisites.

It is hoped that the brief arrangement here made of them will give some help to the corporation surgeon in going closely into the examination and history of every accident coming under his notice and to recommend that suspicious claimants be investigated by properly equipped agencies.

PAIN AS A SYMPTOM.

B. E. SMITH, M. D.,
DeLand, Fla.

As I look to days of yore, it seems that I can yet hear our Professor of Medicine stressing upon his unsophisticated class of neophytes: "On first seeing a patient for examination ask, have you any pain, where is that pain, how long have you had it, and describe it; is it shooting, dull aching, etc."

Pain is not a disease, but a symptom, and is present as such in about 99 per cent of all conditions of illness.

To the average layman, and probably to a great many medical men, pain is looked upon as a sort of a curse; whereas, in reality, pain is a Godsend, for without the symptom of pain to

warn sick people, and even the doctor of present or oncoming trouble, how many people might die before relief was given them? In very rare conditions it is absent in appendicitis; they all die, but think for a minute of the lives that have been saved by having the attention of the individual called to his appendix, by pain.

Pain is a reflex action, for there is no doubt that there is a center of pain, and it is located where all other vital centers are: the brain. As to the causes of pain; irritation, inflammation or injury: these are the exciting phenomena, they are transmitted to the pain center, and in turn the sensation is sent to the injured part through the sensory nerves. Pain may be located at any spot in the human body, but the most careful scrutiny will not always show a cause locally. These conditions, and which are numbered in a very high percentage, are due to some interference with nerve cell nutrition; it may be an irritability, in which there is an increased metabolism, or it may be due to insufficient nerve cell food.

One other very important factor in this connection, is climatic conditions, especially if there is a weakened general system, and the nerve cells are involved.

Humidity is always accompanied by an increased atmospheric density; in other words, the greater the humidity, the heavier the air.

Fifteen pounds to the square inch encircles the body at all times. Under normal conditions, when this is increased, it means extra pressure; the body is squeezed more tightly.

Pressure upon the external surface means pressure within; naturally the nerves receive a certain amount of it. Where there has been a solution of continuity from a previous injury, or when the nerve cells are below normal in nutrition, the same phenomena occurs as would be if pressure was exerted by aid of the finger; retaliation in the shape of distress, which in the case of increased humidity is pain. This is the answer to why many individuals can prognosticate that it is going to rain; they have a corn, or have had a sprained or broken ankle, extra pressure is exerted on the nervous system, and aching or pain occurs at the weakened spot.

The same condition may occur in the individual that has not had an injury, but they are in a weakened condition, a lowered nerve cell nutrition; their uneasiness or pain occurs in the shape of neuralgia or neuritis.

In this connection Prof. E. M. Romberg, University of Munich, says: "Neuralgia is the prayer of the nerve cells for food."

Pain is not always located at the seat of trouble; for instance, in hip joint disease, pain is usually located in the knee, and in tumors, or stone in the bladder, it is referred to the glans penis.

People vary greatly in susceptibility to pain; as yet there is no way of estimating the degree, except as a matter of judgment on the part of the examiner.

The refined feel it more so than the coarse; different nationalities experience what might be termed the same pain, but in different degrees.

The Irish feel pain more acutely than the Scotch, and the Jew more than the Gentile. Of one thing we can be very certain: the less the resisting power the patient has, the more acutely will they suffer from pain. This is very easily understood. A weakened general system means a weakened nerve system, the latter being usually due to a want of nerve cell nutrition. Of course, they will experience pain more severely, and although they may not necessarily imagine any of it, they certainly do magnify it out of all reason. What physician has not seen a small pimple on the face of some woman, described as being so painful she could scarcely stand it.

Pain is expressed in different ways; the hysterical, or individuals with a highly strung nervous system, cry or may yell; the stronger simply moan or show their distress by facial contortions. Much depends upon the impression the individual wishes to create. In forming an opinion, this should be taken into consideration.

Pain may assume various aspects or forms, and to a great degree the form in which it is found may be of inestimable value in placing the location and also the cause.

Thus pain of a boring nature, and constant aching, is usually an indication of bone involvement, syphilis, or, and this is the most common condition found, neuritis.

In all these conditions, the increase of pain at night, and especially if it occurs only during the night, is almost pathognomic.

When pain is lacinating, stabbing or darting, of momentary duration, that is not steady, and moving rapidly about, it is known as neuralgia, and although there may be a cause, such as a tooth or the like, the nervous system, per se, is generally accountable for the great majority.

Pain is considered acute when sharp and violent. When such a condition arises, and it is more or less localized at one certain area, it is due to either inflammation or dilatation. If practically no symptoms precede pain, as fever, chills or a sense of ill feeling, as is so often met with in abdominal, renal or liver localities, it may be fairly assumed it is due to dilatation; from gas as in the abdomen, or stone in the kidney, or gall bladder as the case may be.

As to the cause of pain, it must be looked upon from two standpoints: (A) Those external, or which we are able to detect from questioning, examination or the X-ray. (B) Where there is no apparent external cause, neither can history or careful physical examination reveal one.

These may be classed as neuroses; they are very common and up to a time ago were treated as chronic rheumatic conditions; of late their cause has been attributed to local foci or infection. That the former and also the latter are wrong, most any physician can testify, not in only one case that has come under his observation, but hundreds, possibly thousands of them.

That there is a cause is self-evident, the same as there is a cause for every abnormality that occurs. It has been stated that there is a pain center, and its location the brain; here we must look for the cause, and chemically only it will be revealed.

The phosphatic index, or nerve metabolism, was given to the medical profession some ten years ago by Dr. J. Henry Dowd (*New York Medical Journal*) after about fifteen years of most careful investigation as to its merits in the detection of nerve cell starvation or irritability. It is an examination that is analogous to an estimation of hemoglobin and a red cell count. We know the result in anemia when there is a deficiency of hemoglobin or red cells; iron corrects it immediately. Dr. Dowd proved the index to be of equal assistance in diagnosis; when the alkaline phosphatic precipitate was low, nerve cell nutrition raised it at once, the symptoms, be they pain or otherwise, disappearing promptly. On the other hand, when the precipitate was high, showing increased metabolism, the administration of sedatives were promptly followed by relief.

This condition is more clearly described by Clemesha, M. R. C. S., England, who says: "Dealing with the physiology of the nervous system, we must assume that the nerve cells are

prepared for their work or outlay of energy by food or substances that nourish them, and in common with other systems of the human body, there is a large supply of nutriment that can be called upon in time of need.

"While the metabolic process of the muscular system, to speak generally, is measured by the amount of urea excreted, the metabolic process of the nervous system may be measured by the amount of phosphorus in its various combinations found in the urine."

There are two varieties of phosphates: the earthy, or those found occasionally in freshly passed urine or on boiling, and the alkaline variety only found by precipitation. Of the first, or calcium and magnesium phosphate, little or nothing need be said, they have practically no clinical significance. The alkaline, or potassium and sodium phosphate, occur as crystals, after precipitation, and vary according to the condition of the nervous system present.

The modus operandi is very simple. Use the second urine passed in the morning; fill the phosphatometer with urine to U, add sol*, shake thoroughly and set aside for ten minutes. If now the precipitate is in a solid mass above N. P. (phosphatometer) there is an increased metabolism; sedatives are indicated. It is my practice to use the bromides or valeria, or combined, if the condition is acute; of a few days to a weeks standing. When the condition is chronic, as in neuritis, lumbago, and which are usually accompanied by high-blood pressure, I use a sedo-alterative. Bromarsarum (bromide of gold and arsenic) has given me the best results; ten drops in water T. I. D., increased a drop a day until 20 to 22 are being taken.

When the precipitate does not sink, or where it goes below N. P., it is an indication of a want of nutrition, in other words, metabolism is below the normal; the reserve is being drawn upon and pain or other symptoms are being manifest to inform the physician that something is wrong, which should be corrected ere the reserve is depleted and serious conditions follow.

The crystals may be looked upon the same as red cells, only going a step further and showing degenerative changes that may be present or developing in the neurones.

*Ammo. Sulphate, Ammo. Chlor. and water of ammonia (10 per cent, the common variety), of each an ounce, water eight ounces, let stand for a couple of days before using; solution, etc., accompany each phosphatometer. This solution is inexpensive and can be easily compounded by anyone.

Dowd, who first described the phosphatic index, classifies them under four headings: (A) Normal, resembling the fern leaf, all having well-formed fronds, and a certain density. (B) In form resembling A, but instead of fronds, the edges appear saw-tooth in character; they are light in make-up. (C) Having no appearance of A or B, but appear amorphous in character, no fronds are visible. (Dowd reports that he has observed this condition twelve or fourteen times and that ten or eleven of the victims died in the insane asylum in from nine to twenty months after.) (D) This variety resemble A or B, but are very small in character. They are most indicative of a high nervous state, or hysteria.

The relief of pain, *per se*, resolves itself into finding the cause, then treatment directed against the removal of the same, be it internal or external. For pain due to an external cause, so to speak, as inflammation, irritation from any cause, injury, etc., we have surgery combined with medicinal measures, if necessary; opium or its derivatives will always hold first place. For all conditions of pain where a cause is undiscoverable by external examination, questioning or history, and these will constitute fully 80 per cent of conditions where pain is more or less the important symptom, the phosphatic index should be taken at once. As physicians we know that patients often complain of pain far out of all reason as to that which might be produced by the cause, be it inflammatory or otherwise. We also know that they may suffer from pain, after all irritation, either external or internal evidences have disappeared. In these latter conditions it will be found that although the external causes may have disappeared due to the suffering, loss of sleep, etc., that has accompanied the condition, the nutrition of the nerve cells is impoverished.

The baby cries when it is hungry, because it cannot speak; the nerve cells cannot speak, their word for hunger or irritation is pain.

Probably no three diseases, and whose chief symptom is pain, is more often mistakenly diagnosed than is rheumatism, neuralgia and neuritis.

It has been said there is always a cause, but results were not forthcoming in but a small minority of cases, when supposed causes of the above conditions were removed, thus the birth of focal infection.

We all know its almost complete failure, at least the suffering public can testify to such, and

they calmly tell us, "We have another guess coming," if not in words, then in actions, for we find they are seeking new fields for the treatment of their ailments.

Briefly the following reports along lines as indicated, pain of an indefinite nature, must show the importance of examining chemically when macroscopical evidences are wanting.

As to rheumatism, the following conversation with Dr. Chas. Tyler, of the Black Water Baths (Alden, N. Y.), for rheumatism and facts that I have repeatedly proven to be true, must show the great value to ascertaining the alkaline phosphatic output, showing nerve cell metabolism:

"Of twenty-five patients sent for treatment for rheumatism, the urine was examined at once with the phosphatometer. Eighteen showed a minus index from thirty to ninety per cent below normal, and nerve cell nutrition (a mixture of free phosphorus with *nux vomica*) was ordered at once.

"The lowest precipitates showed the most rapid improvement, but of the eighteen, fifteen recovered in the course of a week to ten days; the pain not only disappeared but their physical condition showed marked improvement.

"A plus index was found in four or five cases, showing an increased metabolism; an irritation of the neurones. Of these three completely recovered in the course of ten days to two weeks; all remained well."

Dr. Tyler remarked that he did not question the original diagnosis of rheumatism, but from two to ten months had elapsed since the starting of their illness. They all had more or less constant pain, and no treatment of any kind had been effective until the index showed the true condition.

As to neuritis and neuralgia, any number of cases could be reported, where every conceivable method had been used. Some had lost teeth, tonsils, even had abdominal operations for appendicitis, kinks in the intestines, etc., without result. Summing them all up, it is safe to say that ninety per cent were relieved more or less quickly after the phosphatometer had shown the true cause—insufficient nerve nourishment, irritation or hypersensitiveness in the neurones.

The diagnosis and treatment of disease has not reached a scientific basis; in fact, it never will.

It is true, the bodies of all human beings are practically similar as to formation, bone flesh and

fluid, but the mind, which is a part of the soul, is an unobservable biologic force of which we find no two alike.

It has been said, and it appears very much as though the statement was true, about 80 per cent of all illness is functional in nature; that is, there is no observable pathological change present. Therefore, many of the symptoms displayed by a majority of the sick must originate from an unobservable force, or the mind.

It must be surprising to the beginner to find different symptoms of the same malady displayed in a different manner, or entirely absent in some individuals, but to the man of experience it is not a false conception but a reality.

Dealing with these functional conditions, we must assume that a healthy body aids in making a healthy mind. The brain is a part of the body; the mind surrounds the brain, therefore, to a large extent, the latter must be influenced by its action. If the brain has a nutrition, the same as blood, bone, muscles, etc., is it not reasonable to look to this region, the seat of all functions, as to nutrition and also the action of the neurones, especially so when appropriate treatment is not followed by results? There is no truer indication of a correct diagnosis in any case than the rapid disappearance of symptoms following medical or surgical measures; fully eighty per cent of pain is influenced by treatment of its source, the nerve cells of the brain.

RENAL MALIGNANCY IN INFANTS.

LUTHER W. HOLLOWAY, M. D.,
Jacksonville, Fla.

Tumors involving the kidneys in infancy and early childhood are usually malignant. At times benign conditions are encountered at autopsy which are too small to be discovered antemortem.

As is well known, malignant disease of the kidneys occurs more frequently in children than in adults and most usually in children under the age of five. The type usually encountered is Sarcoma in some of its forms. The process may originate in the cortex or pelvis of the kidney or in the suprarenal gland. The process spreads rapidly involving adjacent structures and those farther removed. Birch Hirshfield groups malignant tumors under the term adenosarcomata. Carcinoma is very unusual.

The distinctive points in diagnosis are: Rapidly growing solid masses usually located in the

flank with a lumbar attachment. The growth extends toward the pelvis but more toward the median line. Most cases present a hæmaturia early in the disease. The abdomen becomes larger as the mass covers more area. There is a marked cachexia as a terminal condition.

The condition must be differentiated from the following: Enlarged spleen from any cause. The spleen is always very superficial, smooth to palpation and on percussion one gets a marked dullness. The kidney is deep-seated, usually irregular or nodular on the surface and one can usually elicit a tympanitic note over same.

The liver is not as common a site for neoplasms as the kidney, but when involved the process is usually more deeply seated. The presence of hæmaturia with this finding would eliminate the liver, excepting the remote possibility of melanosarcoma.

Tabes Mesenterica produces palpable tumors in the abdomen, but with their presence there is usually a tuberculosis condition elsewhere. These growths are more movable than a kidney would be.

Hydronephrosis would be differentiated from a malignant condition by the fact that one would find marked fluctuation in the former and by the absence of hæmaturia.

Perinephritic abscess presents a very irregular outline, there is pain and the process is accompanied by temperature.

Dermoid Cyst of the ovary would be disposed of by determining its pelvic origin and by the fact that it is very rare.

REPORT OF CASES.

W. C. Eleven months of age. Fifth child. Breastfed, supplemented by table food.

Family History: No miscarriages, tuberculosis or cancer.

Past History: Had whooping cough at four months, no other illness.

Present Illness: Was brought for treatment for chills and fever, temperature when seen 103 F. No hæmaturia to date.

Physical Examination: Well developed and fairly well nourished. All physical examinations negative except the abdomen. There was a visible mass in right side of abdomen which seemed to move with respiration. By palpation two apparently distinct masses could be outlined on the right side, one of which extended four inches below costal border and two inches to left of median line. This mass was nodular. The sec-

ond mass was firm and hard and extended three inches below the costal border. There was a distinct space between the two masses. The spleen extended one and one-half inches below costal border on left side. There was apparently no fluid in the abdominal cavity, but there was pronounced distention. Exploration of the abdomen was advised but refused. Fever disappeared with administration of quinine. Tertian parasites were demonstrated in blood. Microscopic examination of urine revealed the presence of many red blood cells. Parents were advised of possible malignancy. Child was re-examined one week later. The mass in the flank appeared much larger and hæmaturia was now present. The distention was more marked and there was evidence of the presence of quite an amount of fluid in the abdomen. Patient seen again twelve days later. He had fallen from the porch upon a rock and was in a dying condition. Parents permitted me to open abdomen which was filled with blood. There was a rent in the liver. The liver and right kidney were covered with nodules about the diameter of a dime. A cross-section of both kidney and liver showed the surfaces to be studded with sarcomatous areas.

The subject of renal malignancy in infancy is presented for the reason that in the busy routine of professional life in its different specialties, our minds are inclined to become somewhat centered upon the more frequently encountered pathological conditions, and it is believed, therefore, that an occasional reminder of conditions, for instance, cancer of the kidney in a child, may be the means of bringing about more thought and study relative to that particular part of the child's anatomy than is ordinarily regarded in the light of being potentially cancerous.

UNITED STATES CIVIL SERVICE EXAMINATIONS.

MEDICAL OFFICER, JUNIOR GRADE, SALARIES UP TO \$2,000.

MEDICAL OFFICER, GRADE A, SALARIES UP TO \$3,250.

MEDICAL OFFICER, GRADE B, SALARIES UP TO \$4,250.

APPLICATIONS WILL BE RATED AS RECEIVED UNTIL
JUNE 30, 1924.

The United States Civil Service Commission announces open competitive examinations under the above titles. Vacancies in the positions of physician in the Indian Service, surgeon in the Coast and Geodetic Survey, physician in the Panama Canal Service for duty outside of hospitals, and assistant and associate medical officers for field work and at field stations in the Public Health Service, at the salaries indicated below, and in positions requiring similar qualifications, at these or higher or lower salaries, will be filled from these examinations, unless it is found in the interest of the service to fill any vacancy by reinstatement, transfer, or promotion.

Physicians appointed under the Public Health Service for permanent local duty will be selected from registers maintained in the offices of secretaries of civil service districts.

INDIAN SERVICE (Junior Medical Officer Grade).—The entrance salary for physician in the Indian Service ranges from \$1,000 to \$1,200 a year (plus "bonus," see below), with quarters, heat, and light. Employees have the privilege of boarding at the common "mess" at a very low cost. The Government furnishes all drugs and equipment and means of transportation.

COAST AND GEODETIC SURVEY (Junior Medical Officer Grade).—The entrance salary for surgeon in the Coast and Geodetic Survey is \$1,400 a year (plus "bonus," see below), with allowance for subsistence at \$2 per diem while serving on board ship, except in the Philippines, where the allowance for subsistence is \$2.50 per diem. The number of surgeons in the Coast and Geodetic Survey actually employed and under pay at any time is eight. Three of these are employed in Alaska and on the Pacific Coast, four in the Philippines, and one on the Atlantic Coast and in Porto Rico. Officers serving in the Philippines are usually relieved at the end of two years. All surgeons are attached to vessels, and while their first duty is to conserve the health of the crew, it is expected that they will take part in the work of the Survey. Appointment will be confined to those who indicate willingness to accept service in any of the regions named.

PANAMA CANAL (Medical Officer, Grade A).—The entrance salary for physician, Panama Canal Service, is \$250 a month; promotion may be made to \$275, \$300, \$325, and \$360, and to higher rates for special positions. The salary begins on the date of sailing for the Isthmus. Employees are supplied bachelor quarters at a charge for rent, furniture, water, electric light, and janitor service of approximately \$9 a month. Family quarters are supplied at a rental of \$10 to \$25 a month according to class, and additional charge is made for electric current, water and fuel based on the cost of the service. Meals may be obtained at the Canal Zone restaurants on the Isthmus at about 50 cents each and upward. Vacancies in the Canal Zone hospitals are filled by the detail of officers of the Medical Corps of the Army; *openings for civilian physicians therefore occur only in the service outside of the hospitals proper and are few and infrequent.*

PUBLIC HEALTH SERVICE (Medical Officer Grades A and B).—The entrance salary for assistant medical officer, Public Health Service, is \$2,400 to \$3,000 a year, and for associate medical officer is \$3,000 to \$3,600. Any person appointed who is not over 30 years of age may subsequently take the examination prescribed by law for the Regular Corps before he reaches his thirty-second year. Persons between 32 and 40 years of age may take the examination for the Regular Corps after they have performed five years of creditable service under their appointment as assistant medical officer or associate medical officer, as the case may be.

RANGE IN SALARY.—The entrance salaries within the range stated will depend upon the qualifications of the appointee as shown in the examination and the duty to which assigned.

BONUS.—Appointees at annual compensation of \$2,500 or less, whose services are satisfactory, may be allowed the increase granted by Congress of \$20 a month.

CERTIFICATION FOR FIELD SERVICE.—In filling vacancies in positions with headquarters outside of Washington, D. C., certification will be made of the highest eligibles on the appropriate register.

CITIZENSHIP AND SEX.—All citizens of the United States who meet the requirements, both men and women, may enter these examinations; appointing officers, however, have the legal right to specify the sex desired in requesting certifications of eligibles. For the Coast and Geodetic Survey and the Panama Canal Service men are desired.

On account of the needs of the service, papers will be rated as received and certification made as the needs of the service require. In the absence of further notice,

applications for these examinations will be received until the hour of closing business on June 30, 1924. If sufficient eligibles are obtained, the receipt of applications may be closed before that time, in which case due notice will be given.

SUBJECTS AND WEIGHTS.—Competitors will not be required to report for examination at any place, but will be rated on the following subjects, which will have the relative weights indicated:

<i>Subjects.</i>	<i>Weights.</i>
1. Education and training	30
2. Experience	70
Total	100

BASIS OF RATINGS.—The ratings will be based upon competitors' sworn statements in their applications and upon corroborative evidence.

EVIDENCE OF QUALIFICATIONS.—Claims of general or special experience must be corroborated by persons competent to judge of such experience and who have known the applicant for the period vouched for, and claims of specialized experience or service under institutions or organizations should be accompanied by certificates from the appropriate official of the institution or organization. Instruction by correspondence will not be given credit.

PREREQUISITE REQUIREMENTS.

JUNIOR MEDICAL OFFICER.—Applicants must have been graduated from a medical school of recognized standing, or be senior students in such institutions and furnish within six months from the date of making oath to the application a statement from the proper official of the medical school attended attesting actual graduation.

MEDICAL OFFICER, GRADE A.—Applicants must have been graduated from a medical school of recognized standing and have had, in addition, at least one year of postgraduate full-time experience or special study in or under a recognized institution in the branch for which application is made or under a recognized specialist in that branch.

For the Panama Canal Service, applicants must have been graduated from a medical school whose graduates are eligible for commission in the United States Army, and must have had at least one year's postgraduate hospital experience.

MEDICAL OFFICER, GRADE B.—Applicants must show graduation, and in addition, at least three years of the experience or postgraduate special study prescribed for Grade A, of which one year must have been resident experience in a modern and well equipped hospital with a daily average of not less than 40 patients. Service or active duty with the medical services of the United States Government will be given credit toward such hospital experience if the active duty service was appropriate in character to the position now sought.

OPTIONAL BRANCHES.—The eligibles resulting from these examinations will be placed on registers and certified according to their qualifications in the following branches:

- General medicine and surgery (junior and A grades only).
- Tuberculosis.
- Neuropsychiatry and psychiatry.
- Bacteriology (advanced).
- Pathology.
- Epidemiology.
- Public Health practice.
- Industrial medicine and hygiene.
- Child hygiene.

Applications for (a) general medicine and surgery, will be accepted under Grade A and Junior Grade only.

Applications for (b) to (i) will be accepted under Grades A and B only.

Applicants must clearly indicate the title and letter of the branch of medicine and the grade for which they desire to qualify, and before indicating should read the statements as to salaries paid and qualifications necessary for each grade. If appointment to a particular service is desired, the branch should be stated and the salary limit given by the applicant should not be higher than paid in that branch.

In the Public Health Service, no candidate can be recommended for appointment for the medical examination of aliens who has not had at least two years' postgraduate experience, and applications for that service will not be accepted from persons graduated prior to the year 1915, unless they have specialized for a period of at least two years subsequent to 1918 in some phase of public health or preventive medicine (in practice or in laboratory, hospital, research, or educational work).

AGE.—On the date of making oath to the application, applicants for the Indian Service must not have reached their fiftieth birthday, applicants for the Coast and Geodetic Survey must not have reached their forty-fifth birthday, applicants for the Public Health Service must not have reached their fortieth birthday, and applications for the Panama Canal Service must not have reached their thirty-first birthday. These age limits do not apply to persons entitled to preference because of military or naval service, but such applicants must not have reached the retirement age.

RETIREMENT.—Classified employees who have reached the retirement age and have served fifteen years are entitled to retirement with an annuity. The retirement age for railway mail clerks is 62 years, for mechanics and post office clerks and carriers 65 years, and for others 70 years. A deduction of 2½ per cent is made from the monthly salary to provide for this annuity, which will be returned to persons leaving the service before retirement with 4 per cent interest compounded annually.

PHOTOGRAPHS.—Applicants must submit with their applications their unmounted photographs, taken within two years, with their names written therein. Proofs or group photographs will not be accepted. Photographs will not be returned to applicants.

RESIDENCE AND DOMICILE.—Applicants will be admitted to this examination regardless of their residence and domicile; but only those who have been actually domiciled in the State or Territory in which they reside for at least one year previous to the date of making oath to the application, and who have the county officer's certificate in the application form executed, may become eligible for permanent appointment to the apportioned service in Washington, D. C.

MEDICAL CERTIFICATE.—The medical certificate in the application form must be executed by a physician in the Federal service where possible. Persons selected for appointment may also be required to submit to a physical examination before actually entering on duty.

APPLICATIONS.—Applicants should at once apply for Forms 2415 and 2398, stating the title of the examination desired, to the Civil Service Commission, Washington, D. C.; the Secretary of the United States Civil Service Board, Customhouse, Boston, Mass.; New York, N. Y.; New Orleans, La.; Honolulu, Hawaii; Post Office, Philadelphia, Pa.; Atlanta, Ga.; Cincinnati, Ohio; Chicago, Ill.; St. Paul, Minn.; Seattle, Wash.; San Francisco, Cal.; Denver, Col.; Old Customhouse, St. Louis, Mo.; Administration Building, Balboa Heights, Canal Zone; or to the Chairman of the Porto Rican Civil Service Commission, San Juan, P. R.

Applications should be properly executed, *including the medical certificate*, and must be filed with the Civil Service Commission, Washington, D. C., without delay.

The exact title of the examination, as given at the head of this announcement, should be stated in the application form.

PREFERENCE.—Applicants entitled to preference because of military or naval service should *attach to their applications* their original discharge, or a photostat or certified copy thereof, or their official record of service. If, because of disability, the applicant is entitled to a pension under authorization of the Pension Bureau or to a compensation or training under the Veterans' Bureau, he should also submit his pension certificate or a certified copy thereof, or a certificate from the Veterans' Bureau showing that he is entitled to compensation or training by that Bureau. Such papers will be returned to the applicant.

Issued January 24, 1924.

The Journal of the Florida Medical Association

Owned and published by the Florida Medical Association.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of Congress of October 3, 1917; authorized October 16, 1918.

Published monthly at St. Augustine and Jacksonville. Price \$3.00 per year; 30 cents per single number.

Contributions for publication in this journal, whether scientific papers or reports of County Secretaries, should be typewritten.

Address Journal of the Florida Medical Association, St. Augustine, Florida, or 201-202 St. James Building, Jacksonville, Fla.

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SHOULD WE HAVE COUNTY HEALTH OFFICERS?

In a radio health talk, broadcast recently from Station WGY at Schenectady, Dr. Matthias Nicoll, Jr., State Commissioner of Health, made a plea for the employment of full-time county health officers. According to him the practicing physicians who now act as health officers for most communities at meagre salaries cannot afford to devote to the office the amount of time which the modern conception of preventive medicine demands. However Dr. Nicoll believes that by combining all the health work of a county under the direction of one well-trained full-time health officer, rural communities will be enabled to secure the same degree of health protection which the larger cities now possess.

"Perhaps many of you who are listening in to this talk have never heard of a county health officer," said Dr. Nicoll. "It would not be surprising if you hadn't for the only one in New York State is in Cattaraugus County. The idea is not a new one, however, for there are 231 full-time county health officers in 32 other states and everywhere that the plan has been tried a distinct advance in improving health conditions has been made.

"But why is a full-time county health officer necessary or desirable when each community now has its board of health and health officer?

"Except in the larger cities of the State, health officers are practicing physicians who receive but a small sum for their official services and are thus able to devote but little of their time to the health work of the community. In times past this was all that was necessary, for until recent years the health officer's duties were chiefly to quarantine or isolate cases of infectious disease, to disinfect the home when the case got well and to abate nuisances. He might reasonably have been called a health policeman. Today it is different. In order to prevent conditions which may lead to the spread of disease, the modern health officer's duties are multiplied many times. In other words, the emphasis today is on prevention and the most efficient health officer is no longer the one who can stop the epidemic after it has spread, but the one who can keep it from starting. To do this prevention work requires much more time than it did merely to quarantine and disinfect. The result is that the local health officer is unable to attend to everything that he should unless he neglects his practice, and the average local

community cannot pay him enough so that he can devote a large proportion of his time to health work. Moreover, the health officer who is strict and efficient often finds himself unable to retain his patients and as a consequence his practice becomes less lucrative.

"How, then, can the small communities of the State receive the health protection which they deserve? There is apparently but one practical way; that is to have all the communities in a county under the oversight of a properly trained county health officer who can give his whole time and thought to the work. This will not mean that the local health officer will not be needed nor will it mean a lot of added expense, for the cost of establishing and maintaining a county health officership will be made up many times by the general improvement in health conditions and the lessened number of cases of sickness and death.

"In New York State county tuberculosis hospitals and county public health nurses mark the beginnings of county units. When county health officerships are established and permanent county units organized, then it will be possible to make use of the same methods and devices which have been found effective in making the larger communities more healthful places in which to live. Such a thing is now possible in New York State under the provisions of Section 20-b of the Public Health Law. This allows a board of supervisors, with the approval of the State Commissioner of Health, to establish a county health district with its own board of health and health officer.

"It is an actual fact that the average span of life has been increased in many cities and that happier, fuller lives are the result of greater freedom from sickness. Is there any good reason why you who live in the less densely populated places should not share in these benefits?"

WHY THE MEDICAL PROFESSION SHOULD BE RELIEVED FROM PRESENT TAX BURDENS.

The medical profession has three causes for complaint concerning federal taxation:

1. That under the Harrison Narcotic Act, as amended by the Revenue Act of 1918, an excessive and now unnecessary war tax is imposed on the profession.

2. That the physician is compelled to pay an income tax on money paid out by him for certain expenses of his profession, and is thus taxed on an amount in excess of his net income.

3. That the physician is taxed on his earned income at the same rate that he and taxpayers generally are taxed on income from investments, etc.

The following memoranda are submitted to aid the profession in making a clear statement of the situation in presenting to Congress its appeal for relief.

Arguments Against the Continuance of the War Tax under the Harrison Narcotic Act.—In protesting against the continuance of taxation under the Harrison Narcotic Act at the rate fixed by the Revenue Act of 1918 as a war measure, three dollars a year, it should be made clear that the medical profession is not protesting against the Harrison Narcotic Act itself, nor against such taxation under it as may be necessary to give the federal government jurisdiction. The Harrison Narcotic Act originally fixed a tax of one dollar a year, which was deemed sufficient to secure federal jurisdiction, and of that tax no complaint was ever made. Any tax in excess of the minimum amount necessary to give federal jurisdiction is essentially an occupation tax on the physician and as such represents a discrimination against the medical profession, since federal occupation taxes are not imposed on other professions. So far as this tax may be passed on by physicians to their patients, it is a tax on the sick and injured, falling on them because they are sick and injured. The tax collected under the Harrison Narcotic Act is paid into the general revenues of the United States, and does not go directly toward the enforcement of the act. The amount collected under this act from all sources is largely in excess of the amount expended for the enforcement of the act—in 1922, for instance, \$610,311.13 in excess of the amount expended during the same year. In any event, however, there is no reason for imposing on the medical profession any greater part of the cost for enforcing the law than is imposed on any other group in the community, for the law is enacted for the benefit of the community and not for the benefit of the medical profession.

Argument in Favor of the Deductibility of

Traveling Expenses and of the Cost of Postgraduate Study, as Expenses of the Practice of Medicine, in Computing the Physician's Income Tax.—In protesting against so much of the present income tax law as is construed as denying to the physician the right to deduct, in computing his federal income tax, expenses incurred in attending meetings of medical societies and in postgraduate study, the following facts should be borne in mind. The present law provides that the physician, in common with all other business and professional men, in computing his net income, may deduct, "all the ordinary and necessary expenses paid or incurred during the taxable year in carrying on any trade or business, including a reasonable allowance for salaries or other compensation for personal services actually rendered; *traveling expenses (including the entire amount expended for meals and lodging) while away from home in the pursuit of a trade or business; . . .*" "The Commissioner of Internal Revenue has ruled, however, that a physician who is away from home in attendance at a meeting of a medical society or while pursuing postgraduate study is not away from home in the pursuit of his profession and that the expenses incident to such travel and study are not ordinary and necessary expenses of the practice of medicine. Such expenses are regarded by the commissioner as merely personal expenses such as are covered by the provisions of the income tax law which allow to all taxpayers, without regard to their callings or to the necessity for travel imposed by such callings, certain exemptions to cover personal expenses. Obviously, this ruling ignores the fact that such expenses arise in the case of a physician as incidents of his professional work.

The commissioner's interpretation of the law in this respect is out of harmony, too, with the provisions of the law generally as they relate to medical practice. The physician may, for instance, deduct as a professional expense membership dues paid to medical societies, but the ruling complained of penalizes him if he undertakes to make such a membership effective by attending the meeting of such societies. The incongruity of the ruling is further shown by the fact that if a physician travels from one place to another to consult with a fellow physician re-

garding the treatment of a single patient, he can deduct the expenses of such travel, whereas if the same physician travels between the very same places to confer with a hundred of his fellow physicians in consultation concerning the treatment of patients generally, he cannot deduct his expenses. If a physician travels from one place to another to examine one patient in order to apply the knowledge and skill thus acquired for the benefit of that patient, his traveling expenses are deductible; but if he travels from one place to another to engage in postgraduate study of many patients in order to make the knowledge and skill obtained available to the entire community which he serves, he cannot deduct traveling expenses, but must pay an income tax on them.

Obviously, to discourage meetings of medical societies and of postgraduate study, as the prevailing construction of the Revenue Act of 1921 now does, is poor public policy. Meeting in such societies and in the course of such study tends to conserve and promote public health. It tends, too, to increase federal revenues by increasing the earning capacity of the physician. Moreover, by bringing together physicians from various parts of the country, it tends to break down local prejudices and to encourage broader national unity and patriotism. Such travel ought, therefore, to be encouraged, not discouraged.

Argument in Favor of the Reduction of Tax Rate on Earned Income.—The provision of the proposed revenue law that makes the rate of taxation on earned income less than the rate on income from investments, speculation, etc., is new. The benefit thus conferred is to be extended to all taxpayers with earned incomes, and the physician is to be benefited merely as a member of the income-earning group. The concessions in favor of earned incomes is based on the fact that taxation on an earned income is taxation on the productive activity of the taxpayer and tends to discourage such activity and that, since the productive activity of the taxpayer may be diminished or destroyed at any time by personal disability and is certainly destroyed by death, it is entitled to special consideration in the determination of the tax rate. The concession in favor of earned incomes has been recommended by the Secretary of the Treasury, but unless those who are to be benefited by it unite in an

effort to make their position clear, the secretary's recommendation may not receive favorable action by Congress.

Procedure to Make Requests and Protests Effective.—State and county societies should adopt resolutions, and file copies of them with the Committee on Ways and Means of the House of Representatives, and the Committee on Finance of the Senate. This can be best done through an interested senator or representative in Washington. Copies of such resolutions should be sent also to all senators and representatives from the state from which the request and protest comes. Individual physicians should write to the senators and representatives who represent them in Congress, acquainting them with the views of the profession regarding the situation. This should be done immediately, as action on the pending bill will probably be not long delayed.—*Jour. A. M. A.*

HOSPITAL STAFF ORGANIZATION.

Of vital importance to every hospital is the organization of its medical and surgical staff. Within the past few years the American College of Surgery has in its endeavor to standardize the institutions of our nation required that all hospitals receiving its recognition conform to certain requirements. One of the most important of which is staff organization. Monthly meetings must be held and at least one clinical case presented and discussed at each meeting. Several of the larger hospitals of the State are conforming to the standards set forth by the American College of Surgery and it has certainly been obvious to the members of the staffs of these institutions that untold value is derived from such meetings.

In this day of specialization many of our profession tend to narrow in their views and knowledge of the allied branches of medicines. Then, too, the specialist loses touch with his colleague who is pursuing the practice of general medicine. Again the general practitioner, busy with the arduous grind of his daily routine, tends to neglect the finer points of diagnosis. Certainly then the frequent bringing together of medical men of diversified views and training for the discussion of clinical cases is of the greatest educational value.

In Florida we do not have the clinical advantages afforded the medical profession of many other States, but we do have a proportionate amount of clinical material and it is for us to determine whether or not we shall use this material in advancing our knowledge.

The zealously with which we take part in such clinical presentations and discussions will determine the good that is to be derived. Let every hospital of the State, large and small, have an organized staff. Then the members should individually and collectively put their most ardent efforts into making these meetings a success.

CONFERENCE OF MARITIME QUARANTINE AUTHORITIES OF THE WEST COAST OF SOUTH AMERICA.

Doctor Belisario Porras, the President of the Republic of Panama, has called a conference to meet in Panama, R. P., on February 25, 26, 27, 28 and 29, for the purpose of considering the international standardization of maritime quarantine on the west coast of South America and the prevention of international spread of communicable disease in that litoral.

The Conference, which is under the immediate direction of the Honorable Colonel Juan Antonio Jimenez, Secretary of Fomento y Obras Publicas, will hold formal discussions each morning at which will be taken up questions bearing upon maritime quarantine regulations; the methods, periodicity and certification of ship fumigation; uniform quarantine declarations and uniform bills of health. Afternoons will be devoted to practical demonstrations of public health and hospital methods. Clinics will be held at Santo Tomas, Ancon, Corozal and Palo Seco hospitals. There will also be demonstrations in municipal hygiene, garbage collection and destruction, public markets and refrigerating plants at Panama and Colon, R. P. The Conference will inspect the anti-malarial work which is being done by the Health Department of the Panama Canal and will make a study of ship fumigation with cyanogen chloride. The waterworks purification plant will be inspected and there will be a demonstration in public health laboratory methods at the laboratory of the Health Department of the Panama Canal. The Instituto Nacional and the Normal School will give an exposition of meth-

ods of teaching public health to children and the results in improved sanitation coincident upon the installation of the national road system of the Panaman Government will be shown. The Medical Association of the Isthmian Canal Zone will hold a special meeting at the Santo Tomas hospital for the Conference. There will be a visit to the site of the Gorgas Memorial Institute and it is believed that this will constitute one of the outstanding features of this international meeting.

There will be many social functions for the delegates, among the most notable of which will be dinners given by the President of Panama and the Herrick Clinic and luncheons tendered the Conference by the Rotary Clubs of Colon and Panama and the Panama and Colon Associations of Commerce.

The Secretary-General of the Conference is Surgeon William Colby Rucker, U. S. physician, Chief Quarantine Officer of the Panama Canal. Physicians, surgeons and public health workers visiting the Isthmus of Panama at the time of the Conference will be welcomed.

PUBLISHER'S NOTES.

A NEW A. C. S. MONOGRAPH.

The publication of a new American Chemical Society Monograph is announced by The Chemical Catalog Company of New York. This recent book by Dr. George W. Raiziss, Ph. D., and Joseph L. Gavron, B. S., is entitled "Organic Arsenical Compounds." It is probably the most complete and comprehensive work on this subject that has ever been published.

Dr. Raiziss, Professor of Chemotherapy, Graduate School of Medicine, University of

Pennsylvania, is well known for his research work and writings on arsenical compounds. He was the first laboratory worker in the United States to successfully develop American-made arsphenamines for use in the treatment of syphilis. Mr. Joseph L. Gavron has been associated with Dr. Raiziss in literary and laboratory work done in The Dermatological Research Laboratories of Philadelphia.

While this volume of 550 pages covers exhaustively the entire field of arsenicals from a chemical viewpoint, there is much of interest to those physicians particularly interested in the chemotherapy of the arsphenamines.

A NEW SILVER COMPOUND.

Of silver compounds there is no end. Always, it seems, the advantage is offset, in part at least, by some disadvantage; and to the credit of the manufacturing chemist be it said that the disadvantages as they appear stimulate further research, to the end that a perfect product may be evolved. One of the latest and in one sense the most acceptable of these compounds is Neo-Silvol.

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THE JOURNAL

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Florida Medical Association

OWNED AND PUBLISHED BY THE FLORIDA MEDICAL ASSOCIATION

VOLUME X
No. 9

St. Augustine and Jacksonville, Fla., March, 1924

Yearly Subscription, \$3.00
Single Copy, 30c

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PUBLISHED MONTHLY

Volume X

St. Augustine and Jacksonville, Florida, March, 1924

Number 9

ORIGINAL ARTICLES

A PLEA FOR SANER METHODS OF EXAMINING SUSPECTS FOR INSANITY.*

THOMAS ALBERT NEAL, M. D.,
Orlando, Fla.

It may be superfluous to go into details before a medical body concerning the present method of the examination of people suspected of insanity in this State. A brief statement, however, may not be out of order. The law requires that five people, only one of whom may be related to the suspected insane person, sign a petition to the County Judge requesting an examination of this individual. It becomes the duty of the County Judge, on receiving such a petition, and we might add just here that no qualifications are mentioned for these signers other than that only one may be a relative, to appoint a board to consist of two physicians and "*an intelligent citizen*," who shall immediately examine this individual, and find whether he be sane or insane, and if insane whether it be acute or chronic, and whether he be possessed of sufficient funds to pay for his maintenance.

The two physicians in question who are required to have graduated from a college recognized by the American Medical Association, meet with the "*intelligent citizen*," who, oftener than not, is some fellow who had nothing else to do and is handy to the court officials. This board proceeds to examine and quite frequently are directed to the jail! This unfortunate individual whom they are to examine, if possessed of any remaining faculties at all, will usually be found in a more or less dazed condition from a knowledge of his surroundings. Here is an individual who, so far as we know, has committed no crime, at least he is only accused of having a clouded brain, placed among malefactors; and be the jailor ever so kind, and I will say that it has been my experience that the jailors usually are quite considerate toward these pathetic individuals, the situation is one which should rend the heart of any right-thinking individual. You can readi-

ly see that if it happens that this suspect be not actually insane but only suffering from some minor nervous disorder that the surroundings alone would be such that they could not possibly be properly judged, even by two physicians and "*an intelligent citizen*."

On the other hand, if the examining board be conducted to the home of this poor unfortunate whom they are called to examine, even there the surroundings are not always ideal. The Judge of the County Court tells me that during his tenure of office there have been cases in which the examining board found the person to be insane, and in due course of time an attendant came from the State institution and removed the supposed insane person to the State hospital, and that after a comparatively short time this person was again the object of another petition, having been returned to his home in the meantime, and fired back and forth to the insane asylum and his home, the State paying transportation for himself and the attendant all the while. Such is the picture of the state of affairs at the present time.

I would like to make a few suggestions which it seems to me might be in order. In the first place, I believe firmly that this is a question for the medical profession to agitate, and to suggest a bill to the Legislature which would safeguard the interest both of the people and of those poor unfortunates who are suspected of insanity.

In the first place I would suggest that a more definite requirement be made for those who sign the original petition. In the second place, unless the one to be examined is patently insane, certainly not incarcerate him in the jail with malefactors, and I do not know that even those patently insane should be put in jail, because they are not criminals, and during lucid moments, if they should have any, we can realize the torture to their feelings to know their surroundings.

Centers of observation could be established in various hospitals of the State for the purpose of a scientific study of the mental condition of

*Read before the Orange County General Hospital Staff, March 3, 1924.

these people. Where a county, on account of its small population, is not equipped with a suitable hospital, so change the law that the equipment of the next county with proper facilities for this purpose, could be utilized, and that physicians who are recognized practitioners and members of the medical society, even though they were not residents of the county from which this suspect came, would be eligible to examine, and if found insane commit him to the State institution. The expenses of equipping, say four rooms; one for white, one for colored—male and female, would not be so great as to make it prohibitive.

I believe that the good people of this State, if the question were properly placed before them, would find the ways and means of doing this noble work, even privately, if the State has no funds for this purpose. I appreciate some of the legal difficulties that might come up inasmuch as it would call for an expenditure on property which does not belong to the State, but it seems to me that it is a question which might be solved in some way, to get around this difficulty.

In a quiet, properly equipped addition to a hospital, with a trained personnel to handle these people and to place the history and observed symptoms in an orderly form, the examining board could arrive at an intelligent conclusion and certainly make fewer mistakes than are made at present. There would be far fewer tragedies committed by those who, perhaps in a casual examination, make such a good showing that their true status is not found, and they are turned loose, not being found insane, when, as a matter of fact, they might be dangerous monomaniacs, waiting for the opportunity to do some terrible deed. The expenses of transportation to and from the State Hospital for the Insane which, as you know, is now located at Chattahoochee, quite a long distance from more than one-half of the State, would be saved on a large number of cases. The stigma of having been committed to an insane institution would be less likely to follow up the innocent individual, because there would be fewer mistakes made.

I would also suggest that this "intelligent citizen," the third member of the board, should at least be chosen from those eligible to grand-jury duty in his county.

The fees for the examination should either be adequate or else the physician should be privileged to do this work "gratis." The two-dollar fee which they at present draw, make it appear

that they have been properly paid, and on the other hand belittles the importance of this duty. The physicians are taxed at present in every conceivable way—State, county and municipality—and I see no reason why they should be expected to work for an inadequate fee. I feel sure that they would much prefer to do the work "gratis" than to do it on the present basis. I feel sure that, with a proper presentation of this subject through the various civic bodies of the State, Chambers of Commerce, luncheon clubs, and the splendid organization of the Woman's Clubs, an enlightened public sentiment would authorize the solution of this important subject by the State Legislature.

I should like to see a discussion at our next State medical meeting, with a view to drawing a model bill to be presented before the next session of the Legislature.

EPIDEMIC ENSEPHALITIS.*
FROM A MEDICAL RATHER THAN A
NEUROLOGICAL ASPECT.

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It will immediately occur to you that this subject should rightfully belong to the "Neurologist" rather than the "Internist." I realize that it is comparatively a new one to the medical profession, apparently not having been either prevalent or recognized until probably the last twenty years, but has come into great prominence in papers and journals in the last decade.

There seems to be no definite knowledge as to its source of infection, whether it is a germ or virus, whether the germ or virus is similar to that producing influenza, as would seem the case. There seems to be a wide difference of opinion as to its exact pathology. We know there is a congestion and inflammation of the mid-brain and its stem.

In my opinion, it is certainly in its earlier or acute stages a disease that medical men should be thoroughly familiar with. For they are the ones who always first see and treat this disease in the majority of cases, for it is only after the neurological symptoms are well marked that the neurologist is called in consultation.

In about seventy-five per cent of the acute cases whose histories I have been able to obtain all

*Read at a meeting of the Staff of St. Luke's Hospital, Jacksonville, February 5, 1924.

give a distinct history of influenza or some of its allied forms, being either associated with the acute stage of the disease or connected with the patient's past history. I cannot help but believe that if in every case the history had been carefully and remotely taken there would always have been some *catarrhal* history, if apparently only a *slight cold*, which escaped the notice of friends and the patient, but which contained the specific germ or virus causing the disease.

At variance to this statement is the report from the *London Lancet*, that the extensive epidemic of influenza there during the spring of 1922 was unaccompanied by a corresponding increase of epidemic encephalitis. That in Liverpool if any relation existed between the two diseases it was inverted. I would like to ask this writer if what he calls influenza was what was called Spanish Influenza or flu as existed in 1918-1919 and not a usual type of grip so often prevalent without the former's terrible rate of fatalities.

To further again impress upon you that influenza previously prevails. It is hardly a coincidence that it preceded the encephalitis symptoms in the two cases which I am going to present to you tonight.

From all the literature that I can gather very few writers try to make any dividing line between the onset of the encephalitis symptoms with the usual pyrexia toxemia and catarrhal symptoms prevailing as grip until the neurological manifestations are well marked, as the lethargic state and palsies, where the latter begins is apparently hard to say, or is it a single infection, selecting the nervous system with the influenza symptoms misleading the physician?

Again the symptoms of the disease, lethargy, palsies, etc., may manifest themselves days weeks or months after the catarrhal attack. As one of my associates very aptly remarked, it is a disease easy to diagnose until you have to make the diagnosis.

Again impressing upon you that it nearly always occurs in concurrence or as a sequelæ of influenza and that if we are not on our guard it will be very easy to overlook a mild case or fail to recognize a serious one until well advanced, and then probably much to our mortification.

The chief characteristics of the disease are:

First—It tends to appear in epidemic form.

Second—It produces in most cases prolonged somnolence or lethargy.

Third—It gives rise to palsies of the cranial nerves.

Fourth—It causes marked asthenia, (as illustrated by the two cases presented here tonight).

Fifth—Post mortems show evidence of congestion and inflammation of the mid-brain and its stem.

You would think from the nature of the lesion, an inflammation of the brain, that there would be a multiformity of the cerebral symptoms. The unusual fact is that the clinical features are so similar in spite of the many variations.

The disease attacks babies from one month of age ("encephalitis neonitorium") and is generally fatal with them, probably from lack of nourishment. It also attacks the aged up to seventy or over. It is most prevalent between the ages of twenty and forty, and more apt to be fatal previous to or following this period.

I will mention some of the characteristic types which, by their nomenclature, are self-explanatory, describing briefly the two which might be easily confused.

Eight well-defined sub-groups are described by Tilney and Howe, which I will briefly enumerate as follows:

1. The lethargic type.
2. The cataleptic type.
3. The paralysis agitans type.
4. The polio-encephalitis type.
5. The anterior polio-encephalitis type.
6. The posterior polio-encephalitis type.
7. The epilepto maniacal type.
8. The acute psychotic type.

The first of "lethargic" type, where the patient remains in a state of somnolence, but will respond intelligently on forcibly arousing, dropping back to the state of somnolence immediately thereafter.

The "cataleptic" type, where the patient cannot be aroused, remaining apparently sound asleep or staring into space, but not necessarily unconscious, as shown by tears streaming down the face of a patient who heard the seriousness of the case discussed in her presence.

It is an acute encephalitis with a mild temperature averaging in most cases from 100 to 102 degrees, but ranging higher in the more serious types and later stages. The pulse is in accordance with the temperature.

The cranial nerves are nearly always involved or palsied, affecting a portion or the whole of the musculature of the face to a greater or less degree, particularly the motor oculi, facial and hypo-glossal nerves giving us ptosis, dilated

fixed pupils, with the blank stare typical of the disease, inability to wink or wrinkle the forehead, producing a smooth forehead. Slowness of speech. Dribbling saliva from the affection of the hypo-glossal. Then the palsies of the limbs, slow, characteristic, shuffling gait, or Parkinsonian syndrome. The patient lying in a semiflexed position, staring into space, with the unexplained neurological findings of normal superficial and deep reflexes in most cases. Another frequent symptom is a troublesome seborrhea.

I wonder if it is not possible that many patients seek one doctor after another, considered by each "one of these neurasthenics", probably improving temporarily but dropping back to the frequent relapses which are the rule, finally seeking the neurologist who should recognize the disease.

I believe after the terrible epidemic in 1918-1919 there were probably many such patients for all we know, that neurasthenia was the most common after-affect of influenza then prevailing. These patients probably had a real cerebral toxemia and not an imaginary disease.

It must be that there is a great similarity between the germ or virus in both Spanish influenza and epidemic encephalitis. I emphasize "Spanish influenza" because I believe that it is an infection whose germ is still undiscovered and a disease of which there is none similar in previously recorded history, probably due to immunity established. The above type has fortunately disappeared, though I believe we still have our sporadic cases.

Another line of conjecture, to my mind perhaps far-fetched, perhaps not, is whether there is not some similar source of infection in measles, whose germ or virus has also not been isolated. Remember, we have the pronounced catarrhal symptoms with which we are familiar, the pronounced pyrexia, the painful toxic pains and the characteristic rash. Would it not be reasonable to suppose that in this disease a similar infection affects the superficial nerve terminals rather than the central nervous system.

Let us hope that those of us who frequently come in contact with measles or epidemic encephalitis may by clinical observation discover what our bacteriologist and pathologist have failed to do.

It is most important to differentiate epidemic encephalitis from the following diseases:

Spinal meningitis, which presents on spinal

puncture an increased tension and pleocytosis and tubercular bacillus.

Cerebrospinal meningitis of the epidemic type, where the spinal fluid is cloudy, has many leucocytes and the meningococcus.

Cerebrospinal syphilis, where we have the positive Wassermann, increased leucocytosis, increased globulin or a paretic or a leutic colloidal gold curve.

Typhoid fever with its wedal reaction, temperature curve and rose spots.

From diphtheritic paralysis, where we find the Giebsloffler bacillus in the throat and a history of diphtheria.

From uremia, where we have albuminurea or presence of renal cast or evidence of renal insufficiency by phenol-sulphonaphthaline test.

From hysteria, with its hysterical stigmata, absence of temperature, marked sensory disturbances, contraction of the visual fields, nystigmus and normal reflexes.

Cerebral tumor, where there is an absence of optic atrophy, vomiting and paroxysmal headaches.

Acute dementia, with persistent maniacal delirium, without stupor or pyrexia.

Diabetic coma, with sugar in the urine, acetone and acidosis.

The above differential diagnoses are self-evident reasons why the medical man should be posted on this disease.

To quote Simon Flexner, in the last November issue of the *Journal of the A. M. A.*, in which he says that two decades of the present century have witnessed the destructive outbreaks of the epidemic meningitis and epidemic encephalitis and alludes to a mysterious and fatal disease called "Australian X", which has prevailed in certain parts of the world and that he sees similarity in this to epidemic encephalitis. He believes that epidemic encephalitis is a form of influenza and states that this possibility is still much discussed.

Another writer, in the *British Medical Journal* of the last November issue, describes epidemic hiccup and describes a case which seems to establish a definite relation between epidemic hiccup and epidemic encephalitis.

Dr. E. L. Hunt, in the last October issue of the *Journal of the A. M. A.*, gives us some rather interesting if not startling facts about this disease. He states that the epidemic in New York in 1923 was much more extensively virulent and fatal than any previous. That there were

five hundred and seventy-five cases in New York last year reported to the State Board of Health. Still, as so many observers have noted, in view of the decided contagiousness of the disease he advises the proper hygiene and segregation of patients.

The International Medical and Surgical Survey cites an instance of twenty-two persons in a small community contracting the disease with twelve deaths, showing the highly contagious tendencies in this instance.

It is reported in the *Minnesota Medical Journal* that three cases of epidemic encephalitis were referred by as many competent medical men to one surgeon. Two of them were diagnosed, one as intestinal obstruction and one as an acute appendix. Fortunately the operations were delayed long enough to allow the neurological symptoms to prevail.

The treatment for epidemic encephalitis so far is entirely symptomatic and empirical. The iodides, bromides, silver salts, arsenic, scopolimine, hyoscyamus, quiet and rest, change of climate, etc., have all been tried with little success. The permanent recoveries are few except in milder or polio-encephalitis types.

I will now present two cases, one of the lethargic type and the other paralysis agitans type.

The case of Mr. J. C. King, who has been under my care here at St. Luke's Hospital for the past month, and his history as given me up to that time by his physician, Dr. Erwin:

Pneumonia at 18; influenza in 1920.

No genito-urinary history, syphilis or gonorrhea.

In April, 1920, he developed what was diagnosed as Spanish influenza. Lasted one month with usual symptoms except persistent temperature and muscular pains. Recovery in May, but could not concentrate. Did not wish to move and found that he could not walk or move rapidly. Unable to attend his toilet on account of slowness of movement. Intelligence was not affected, but gradually developed crowd phobia, became depressed and irritable, was not able to tell one hand from the other.

He was seen by Dr. Randolph in July, but had no further treatment until 1922 when he was seen by Dr. Erwin, who made the diagnosis of epidemic encephalitis. Was actively treated from August until November with slight improvement. In December, 1923, he was referred to Dr.

Ralph Greene, who confirmed the diagnosis and sent him to St. Luke's Hospital. Dr. Greene has kindly kept up his interest in this case and has seen him at intervals.

His examination shows a poorly nourished young man, clear mentally. All bodily movements slow, very slow to think, slow of speech, but his answers are correct and intelligent. His face is expressionless, eyes staring, lids open, rarely closed. Facial muscles not brought into play except on forced effort and then only a part of them. There was a continuous flow of saliva, ears and nostrils apparently not affected. Heart, lungs, abdomen and genitalia apparently normal. His arms and legs have a tendency to stay in the position placed, which is another usual phase.

Both deep and superficial reflexes appear practically normal except knee jerk slightly retarded.

He has improved steadily while here but, as you see plainly, he has not recovered. During his first two weeks here he remained in a semi-flexed spastic position, lying on his back, staring at the ceiling and noticing nothing going on around him unless directly and closely spoken to. His pillows were saturated with saliva, his food on his face and pillows. He would remain in the above position for hours.

About the third week he would occasionally walk around the ward, seemed to take some interest in what was going on around him. I would note an occasional movement of the eyelids. His saliva no longer noticeable and his appearance more presentable. He was able to promptly slap at a fly on his right hand when told that he had such an ornament there. Two or three days ago he called one of the nurses by name, requesting a sedative for nervousness, of which he always complains when his health is inquired into.

All his blood tests, Wassermann, including spinal, were negative, with an X-ray of his head of interest, but probably of no diagnostic value. For two weeks I had him given daily hypo-injections deep into the buttocks of mercury biniodide and iodide of potash.

The case of Mr. Herbert Rice, fifty-one years old, a large, robust man. Salesman for a local lumber company:

As a child he had St. Vitus dance and inflammatory rheumatism up to fifteen years of age. In September, 1923, he had an alarming automobile accident, nearly losing both eyes from broken glasses. In October of the same year he had a severe cold. One month after, while trying

to write his menu at a restaurant, found that he could not use his right hand. Continued at his work, but is not quite clear as to his condition; was advised by his employers to take a rest. His general condition getting much worse. His asthenia pronounced, his weight declined from two hundred and twenty-five to one hundred and forty or less. He had much trouble in swallowing and, to use his own expression, had to spit all the time.

He still shows a paralysis of his pupils and, as you see, his paralysis and tremor of both arms and hands is marked.

Mr. King represents the lethargic type and Mr. Rice the paralysis agitans type.

OCULAR HEADACHES

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By the term ocular headache is meant one that is caused by some error of refraction or muscular imbalance and therefore amenable to prompt cure. Headache is only a symptom, but it may be ultimately responsible for many other symptoms of nervous irritability. One may even indulge in the supposition that nearly all the symptoms observed in eye-strain are merely secondary to the primary headache. Headache is the direct result in about eighty per cent of cases of some ocular anomaly, refractive or muscular, and if neglected and permitted to grow into a habit it so saps the vitality of the patient that it soon gives rise to other symptoms.

In an article on "Headaches Caused by Eye-Strain," Dr. Percy Webster wrote that many years ago Weir Mitchell pointed out that eye-strain may be revealed solely by occipital or frontal headache, there being no pain in the eye and no sense of fatigue whatever locally, but that if such strain be allowed to continue for a long time it may cause insomnia, vertigo, nausea, and general ill-health.

According to Webster, the headaches resulting from eye-strain include the following varieties: frontal, vertical, temporal, occipital or limited to a small area of the scalp. While eye-strain is often the only cause of these headaches, general ill-health may be a contributing factor.

Eye-strain, also, may be the only cause of attacks of vomiting and vertigo, the strain being due to some error of refraction, or the faulty set of an eye muscle. All symptoms in some cases

have been relieved by the correction of so trifling an error as .50 or .25 hypermetropia or astigmatism.

E. L. Gault, in his paper on Ophthalmology and General Medicine, says: "I am disposed to think that in every case of persistent headache of long duration, especially if it be associated with or increased by new works, the determination of the refraction of the eyes after the accommodation has been paralysed by the homatropine should be at once made. This is called for the more clearly if examination by test types discloses visual acuity below normal, or if there is evidence of astigmatism shown by want of clearness of some of a series of lines converging to a point when others in a different place appear clear. Here, however, it must be pointed out that the possession of visual acuity equal to 20/20 or even to 20/25, does not negative the existence either of hypermetropia or of astigmatism. It is a common thing to find a considerable amount of hypermetropia concealed by accommodative effort, the patient himself putting on a correction of his hypermetropia by increasing the convexity of his crystalline lens."

Gault believes that even a very small degree of astigmatism should be accurately corrected, since 0.25D (or even 1/8D) of hypermetropic astigmatism may produce recurrent or persistent headaches. "The method of retinoscopy, combined with test-glass examination, first under the influence of a cycloplegia, and then without it, offers usually a very satisfactory means of accurately estimating astigmatism and of determining on a suitable correcting glass."

The writer agrees with Gault that low grades of hypermetropia in young persons with vigorous ciliary muscles and good range of accommodation are not productive of headaches, hence do not require the use of correcting glasses, either for distance or near view. In this opinion, though, Gault acknowledges that he differs with some physicians and oculists.

W. R. Broughten, in an article on "Some Common Results of Eye-Strain," says that while it is admitted by all observers that one of the commonest results of eye-strain is headache due to refractive error, yet not all eye headaches are caused by errors of refraction, so that, when no relief is secured by a careful and full refractive correction, the condition of the ocular muscles should receive a very thorough investigation by the oculist. He adds:

"Esophoria, hyperphoria, exophoria, cyclophoria, anaphoria and kataphoria are all frequent causes of headache in about the order named."

Every chronic case of headache should be carefully examined under a cyclopegic (in patients under 45), says Broughton, and a full correction of the astigmatism, with as much of the hypermetropia as the eye will tolerate, should at first be ordered in glasses for constant wear, the glass being increased to a full correction as rapidly as possible.

According to Aaron Brav, in the majority of cases of eye-strain and headache the trouble is found in the astigmatic type, simple compound, or mixed, but the eyes are usually free from pain, while vision, as tested by Snellen's card, is normal.

"Normal vision," he says, "does not mean a normal dioptric apparatus, for normal vision may be obtained with high degrees of error of refraction, such as hyperopia. But this vision is obtained by means of an extraordinary expenditure of nerve force exerted upon the ciliary muscles. The ciliary muscles in response to this extra nerve stimulus, have to do an extra amount of work and this overexertion causes reflexly the headache."

Regarding the treatment Brav says that certain cases of ocular headache require some medical aid even after the optical error has been corrected by properly prescribed and adjusted lenses, such as hygienic and dietetic measures with a proper tonic. Often the muscular disturbance must be treated by prism exercises.

TWISTED PEDICLE OVARIAN TUMOR WITH STRANGULATION.*

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ROBERT B. McIVER, A. B., M. D.,

ASSISTED BY

BEN MANHOFF, M. D.,

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In the preoperative diagnosis of the acute abdomen in the female, the possibility of twisted pedicle ovarian tumor is often overlooked. General opinion holds this condition as relatively rare, but statistics indicate that it accounts for a goodly number of acute abdomens, and that torsion of the pedicle occurs in 20 per cent of all ovarian tumors. It is believed that cases of this

character occur at times in the practice of all gynecologists and general surgeons but are seldom recorded; also, that if the conditions were borne in mind it would be recognized frequently. Four cases coming under our observation in the space of one year have suggested their being reported.

Rotation of ovarian cyst, where the pedicle is long, may vary from one-half to several complete turns. Torsion of the pedicle is supposed to be favored by bodily movements on the part of the patient, such as result from strenuous labor, athletic exercises, riding, jars, trauma, alternating filling and emptying of the bladder and bowel, and during pregnancy. One important cause is the unequal growth in different parts of the cyst wall. Also when the ovarian tumor grows to a certain size it rises out of the posterior part of the true pelvis into the anterior part of the false pelvis of the opposite side. During this excursion the pedicle of the tumor is necessarily turned in a spiral manner, but under certain mechanical conditions the torsion becomes increased until the blood vessels of the pedicle are compressed, whereupon symptoms ensue.

As a rule if the amount of torsion reaches 180 degrees, symptoms become evident. The pedicle



Pyelogram of massive pyonephrosis. Illustrating a renal condition giving rise to acute abdomen with tumor formation. (X-ray, Drs. Cunningham and Shaw.)

*Presented before the staff of St. Luke's Hospital, May 4, 1923. We wish to thank Dr. J. E. Boyd for the privilege of including Case 2.

may take two or three complete rotations about its axis, occasionally as many as five or six. The torsion causes a compression of the veins of the pedicle without interfering with the arterial circulation and produces a *sudden rapid increase* in the size of the tumor as a result of venous congestion and greatly increased secretion from the tumor wall. The obstruction of circulation produces a hemorrhage into the lumen of cystic tumor. If the twisting increases, there is thrombosis of the vessels and extravasation of blood into the peritoneal cavity and later necrosis of the tumor, followed by fatal peritonitis.

The clinical appearance of torsion varies in proportion to the acuteness of the condition. If the torsion take place slowly and does not exceed a partial compression of the venous circulation of the tumor, there may be only moderate pain without severe constitutional symptoms. The symptoms may continue for some time, usually accompanied by a *very evident increase in size* of the tumor. The tumor may even right itself with disappearance of symptoms.

If torsion is acute the picture is a stormy one and resembles that of acute peritonitis. The abdomen is rigid and distended and extremely sensitive. There is often an ileus due to peritoneal irritation, and the pulse is rapid and thread-like. Acute torsion of the pedicle usually causes bleeding from the uterus on account of general pelvic hyperemia.

When occurring on the right side the diagnosis may be confused with various stages of acute appendicitis; at times it is confounded with early

ectopic or normal pregnancy and with prolapsed infected kidneys or hydronephrosis and with low intestinal obstruction.

CASE 1.—Miss M. A., age 12, white, female. Was admitted to St. Luke's Hospital, October 19, 1921, on account of palpable mass, extreme sensitiveness and rigidity of lower abdomen.

Family History: Essentially negative.

Personal History: Has had usual diseases of childhood including diphtheria which was complicated by otitis media. General health excellent until one year ago. Menses not established.

Present Illness: About thirteen months ago the child noticed a midline swelling in the lower abdomen, which very gradually increased in size. At irregular intervals after violent exercise the patient would have moderate pain in left lower abdomen, some vomiting and slight elevation of temperature. After two or three days' rest in bed symptoms would disappear. Shortly before admission to hospital the attacks became more frequent and with more intense pain. About six days before entrance to the hospital, after some active exercise, the patient had her last attack, this being so severe she immediately went to bed. Symptoms this time did not disappear but increased in severity. Pain in this attack differed from other attacks by being on the right side in place of left side of abdomen, and of such sharp character that she was unable to sleep. There was no vomiting as in the former attacks, but constipation was present,—in fact, a partial obstruction. She lost her appetite and had some rise in temperature. The swelling increased in size. A local physician sent her immediately to hospital.

Physical Examination: Showed a fairly well developed female child, of about 12 years of age, slightly underweight, weighing about 70 pounds. She had a worried, anxious expression, apparently in acute pain. Her temperature was 101, her pulse 124 and rather weak. A complete physical examination was negative except for the abdomen which was markedly rigid, extremely sensitive and distended. A palpable mass the size of a large grapefruit was identified on the right side reaching from symphysis to umbilicus. Owing to extreme tenderness it was impossible to determine details as to fixation and fluctuation. White blood count, 12,000. Urine was negative except for r. b. c. Thirty minutes after admission patient was taken to operating room. Under anesthetic cystoscopic examination was made by Dr. McIver to rule out the right



Ovarian cysts. Showing a type of enlargement with elongated pedicle and prone to strangulation. (Photographed by Dr. Sellers.)

kidney. This examination was negative except for some congestion of right ureter. Normal urine spurts were seen coming from each ureter. With patient still under anesthetic a vaginal examination was made. The cervix was softened. The uterus was normal in size but fixed posteriorly. A large mass was palpable on right side, which bimanual examination showed to be connected to pelvic organs. A diagnosis of torsion of pedicle of ovarian cyst was made and an immediate operation performed by Drs. Field, McIver and Mabry. On opening the abdomen free fluid was noted and a non-adherent, twisted pedicle cyst the size of a large grapefruit was found, which was filled with about one pint of sero-sanguinous fluid. Its walls were thickened and congested. Some areas in cyst wall contained dermoid with characteristic material and hair in same. There were four twists in the pedicle. The mass was in the right side of the abdomen, although it originated in the left ovary. The cyst wall and left tube were acutely congested with beginning necrosis. The bladder wall was thickened, edematous and congested. The omentum which was adherent in bladder fossa was freed and tabs were removed. The uterus, right tube and ovary were normal. Both kidneys were in place and normal in size. Left salpingo-oöphorectomy was performed. Convalescence was normal. November 2nd, two weeks after admission, patient was discharged. One week after leaving hospital patient had her first menstruation, which has been fairly regular ever since. Present weight is 104 pounds.

CASE 2.—Mrs. C. H. S., age 26, white, female, married. Was admitted to St. Vincent's Hospital, July 14, 1922, with painful mass in lower abdomen.

Family History: Essentially negative.

Personal History: Has had usual diseases of childhood. General health excellent except for irregular menstruation and severe dysmenorrhea. No history of pelvic infection. Married 10 years, but has never been pregnant.

Present Illness: Three days before admission, the patient developed a sudden, sharp, non-radiating pain in the right-lower abdomen. There was nausea which soon disappeared, but no vomiting. There was a slight elevation of temperature. On examination the family physician noted quite a tender mass in lower abdomen which gradually increased in size; also a thick yellow vaginal discharge.

Physical Examination: Showed a well-nourished adult female, lying in bed, legs flexed at knees, apparently in acute pain. Her temperature was 101, pulse 100, respiration 20. A complete physical examination was negative except for abdomen, which was rigid, sensitive and distended, especially on the right side below the umbilicus. A palpable mass, occupying the lower abdomen, slightly to right of midline, which was very tender. On vaginal examination a thick, yellow discharge was noted; the cervix was high but did not appear soft or fixed. The mass was apparently attached to the pelvic organs. Rectal examination confirmed vaginal. Urinalysis was negative. A provisional diagnosis of twisted pedicle ovarian tumor was made; pedunculated fibroid of uterus was mentioned as a possibility. Without further study an immediate operation was performed by Drs. Boyd and McIver, gas ether anesthesia (Dr. Day). On opening the abdomen a discolored mass three inches in diameter was found occupying the right iliac region which, when separated and delivered, proved to be a dermoid cyst of left ovary. There were three complete twists in its pedicle with strangulation and beginning necrosis. The right fallopian tube was edematous and inflamed, the right



Case No. 4. Erect posture. Note enlarged abdomen, especially lower part.

ovary cystic and the appendix adherent. Left salpingo-oöphorectomy, and right salpingectomy were performed. The convalescence was uneventful; patient discharged from the hospital at the end of two weeks.

CASE 3.—Mrs. E. D., age 36, white female, married. Was admitted to Duval County Hospital, September 20, 1922, on account of painful mass in lower abdomen. Admission diagnosis: Appendiceal abscess.

Family History: Essentially negative.

Personal History: Has had usual diseases of childhood. Influenza in 1918. General health excellent. Menses established at age of 13, and were normal. Married at age of 22; has three children, all living and well, the oldest 13 years and the youngest 3 years. The first delivery was instrumental. No abortions.

Present Illness: Ten days before admission the patient developed sudden, acute, colicky pains in the lower abdomen, which soon localized in left-lower quadrant. Having suffered like attacks before, the patient was not alarmed, but, as usual, took a simple purgative. The pain increased in severity and a physician was called. Three days later the pain shifted from the left to the right side and a mass about the size of a closed fist was then noted for the first time, in region of McBurney's point. The pain continued to increase in severity and the mass became exquisitely tender. History of nausea and vomiting was uncertain, but patient declared she had been "sick to her stomach," and thinks she had fever.

Physical Examination: Showed a fairly well-nourished and developed adult female, lying in bed with both thighs flexed at hips and legs flexed

at knees, facies that of pain. Her temperature 99, pulse 86, respiration 22. Physical examination was negative except for the abdomen, which was slightly distended, very rigid, and extremely sensitive in the right-lower quadrant. Here a tender, palpable mass, three inches in diameter was felt. On vaginal examination, the cervix was freely movable and did not appear soft. Uterus was displaced toward the left but was not fixed. The mass was apparently not attached to pelvic organs. The examination was unsatisfactory on account of rigidity. Urinalysis showed some granular casts. Wassermann was negative. Blood count: White, 12,800; polynuclears, 78 per cent; hemoglobin, 75 per cent. Provisional diagnosis: Appendiceal abscess.

Because of certain unusual features in the history of this case four different members of the surgical staff were called in consultation, the result being no change in diagnosis. The patient was put up in Fowler's position with ice-bags over the mass in the abdomen and kept under observation.

Operation: Drs. Schnauss and McIver. Anesthesia: Gas-ether (Dr. Day). September 26th, six days after admission. Because of the peculiar fixation that the mass exhibited when the patient was anesthetized, a mid-line incision below the umbilicus was made. A dark mass measuring four by two inches was found firmly fixed to the peritoneum, cecum, and coils of intestines. This was carefully separated and found to be a dermoid cyst of the left ovary, the pedicle of which was twisted by four complete turns and strangulated. Left salpingo-oöphorectomy, resection cyst right ovary and appendectomy were performed and the abdomen closed with a small cigarette drain.

The tumor was dark, covered with inflammatory exudate, and measured four by two inches. On section a foul fluid escaped from a dermoid cyst; hair and bone were additional contents. Convalescence was without complication and the patient was discharged cured, October 11, 1922.

CASE 4.—R. G., age 30, colored, female, married. Was admitted to Duval County Hospital December 11, 1922, on account of painful swelling in right-lower abdomen. Diagnosis: Pregnancy.

Family History: Essentially negative.

Personal History: Has had usual diseases of childhood. General health has been good. Menses established at age of 15 and were normal. She has missed the last three periods. Married



Case No. 4. The contour of abdomen prior to anesthesia.



Case No. 4. The contour of abdomen under anesthesia. Note the retraction of upper abdomen, due to relaxation of recti muscles, and sharply defining tumor in lower abdomen.

at age of 21. Had three children, two of whom are living. Two abortions, cause being unknown.

Present Illness: While chopping wood, three days ago, the patient developed an acute pain in right-lower abdomen which was soon followed by the discovery of a mass in this region. Fever was present but there was no nausea or vomiting. Under the impression that she was pregnant, the patient went to bed, thinking the pain would subside. However, the symptoms grew worse, the pain became colicky in character, and the right-sided mass continued to enlarge. She called a physician who sent her into the hospital with the diagnosis of pregnancy.

Physical Examination: Fairly nourished and developed young colored female. Temperature 101, pulse 100 and regular, respiration 22. A detailed examination by system was negative except as regards the abdomen and pelvis. Abdomen: Distended below umbilicus. Marked rigidity lower half of recti muscles, more especially the right. There was a mass the size of an orange occupying the right-lower abdomen, which was tense, resistant, movable and exquisitely tender. Pelvic: Cervix was hard and displaced to the left. Body of uterus not enlarged. A mass occupied the right pelvis and was apparently attached to the pelvic organs. Urinalysis showed leukocytes and epithelium. Blood: Wassermann, negative to alcoholic and one plus to cholestrinized antigens. Hemoglobin, 80 per cent; leukocytes, 11,500; differential polynuclears, 72 per cent. Cystoscopy (Dr. McIver) and pyelography (Drs. Cunningham and Shaw). Study negative. The pyleogram shows a right kidney

normal in size and position and not connected with the pelvic mass.

Provisional Diagnosis: Twisted pedicle, right ovarian cyst.

Operation: Drs. McIver and Schnauss. Anesthesia, gas-ether (Miss Fleming), December 6, 1922. Right-lower rectus incision. A dark mass measuring four by three by two and one-half inches was found to the right of the umbilicus, adherent to the omentum, cecum, and coils of ileum. This proved to be a strangulated right ovarian cyst, the strangulations being due to one complete twist in its pedicle. Other pelvic organs normal. Appendix retrocecal. A right salpingo-oörophorectomy was done. The tumor was a simple cyst of the ovary and contained blood and serum. The recovery was without incident and the case was discharged on the 18th day post-operative.

CONCLUSIONS.

1. Twisted pedicle ovarian cyst is a clinical entity met with more frequency than the literature would indicate.

2. The diagnosis is not difficult in the majority of cases if the frequency of the condition is borne in mind, a careful history taken, and a systematic physical examination made.

3. The condition is, in our experience, more frequent in adults than in children as the literature would lead one to think.

4. The operative results are excellent.

REFERENCES.

- Lynch, Frank W., *Pelvic Neoplasms—Gynecological and Obstetrical Monographs*.
 Graves, W. B., *Gynecology*.
 Crossen, H. S., *Diseases of Women*.
 Keen, W. W., *Surgery*.
 Ochsner, A. J., *Surgical Diagnosis and Treatment*.



Case No. 4. Strangulated cyst delivered. Note twist in pedicle just above the abdominal retractor.

ROENTGENOGRAPHY OF THE ACCESSORY SINUSES.

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It is our intention to include under this title, the relation between the oto-rhino-laryngologist, the clinician and the roentgenologist in the matter of diagnosis of sinus conditions, and to point out as well the possibilities and limitations of the X-ray in this field. We can not expect to assume that roentgenological methods will be of strict uniformity, for in both technic and diagnosis, discussion among X-ray men is still very active, and there is ample room for improvement and uniformity of thought in this field of endeavor. We shall discuss briefly a few points as to anatomy, technic and methods, interpretation, and our limitations in this field. We trust that the aid and suggestions of clinicians will help us in producing better results, and will thereby increase the value of roentgenography to the nose and throat specialist not only, but also to the clinician who realizes that in the sinuses lie a potential focus of infection which plays a considerable role in many cases of respiratory tract and systemic infection and disease.

It is a self-evident fact, even to one who is not intimately acquainted with roentgenographic procedure, that when we attempt to delineate the accessory sinuses on an X-ray film, not to mention the visualization of pathology which often approaches the microscopic in character, we are dealing with a field of endeavor which in many cases has done more to shake the faith of the surgeon in the roentgenologist than to cause him to realize the assistance which may be obtained from properly made and interpreted X-ray films. As a result the average surgeon pays scant attention to the X-ray findings. This paper was undertaken in the hope of altering this impression, particularly in local circles.

Anatomically, we are dealing with spaces among numerous structures which cannot be radiographed except through bony structures of varying thickness and density, and are therefore compelled to make our deductions from relative densities to even a greater degree than in many other portions of the body. In developing a technique which will prevent unnecessary superimpositions of shadows, we are faced by the fact that no two skulls are exactly alike, and as a result there can be no technique which mechanically will apply to all skulls, and in all cases give us anatomically identical films. A good technician with a working knowledge of anatomy is of

more value than all the mechanical devices in an X-ray laboratory. In avoiding superimposition of shadows the chief offenders are the petrous portions of the temporals, the atlas, axis and cervical spines, the floor of the anterior fossa, the wings of the sphenoid, the tegmen of the petrosal, and the condyles of the occiput. It has been our observation that when we attempt to place the patient's head in such a position as to avoid superimposing any one of these structures, we invariably find that another has taken its place.

Our greatest aid in differentiation of shadows is the stereoscope with its resultant visualization of relative depth, and we are at present attempting to add to our aids the Bucky diaphragm for still clearer delineation. After all, good diagnoses were made when the roentgenologists' armamentarium was very limited, and a carpenter's ability lies as much in the personal equation as it does in his tools.

The literature is rife with techniques for radiographing the accessory sinuses, and some of the methods suggested even approach the freakish. We consider the following factors necessary, and they allow of considerable play in the hands of those who are thoroughly acquainted with the anatomy of the skull:

1. It would be ideal to demonstrate all the structures of the nose and sinuses on one pair of films.
2. Absolute restraint against motion of the skull is essential to proper technique.
3. The comfort of the patient is an essential to good films.
4. No two skulls have exactly the same permeability to the ray and it is as easy to overexpose as to underexpose, thereby losing the finer changes which are often of more value than the gross changes.

For some time we have realized that there was opportunity for improvement in the technique, and during this time have tried all the methods described in the literature, only to fall back on the methods of the pioneer in the field or roentgenology, Van Zwaluwenberg, and with a modification or two in his methods, we feel that the technique we are now using constitutes as comprehensive a routine technique as is necessary. As we are becoming more adept in its use, we are adding slight modifications, but fundamentally the whole secret lies in stereoscopic films made on a Bucky diaphragm, with a fine focus tube¹, and apparatus assuring absolute comfort for the patient, and at the same time immobilization of the part to be rayed.

ANTRA.—We have found the bakelite sheet used by Granger² for sphenoid work an invaluable aid. When placed in the trough of the Bucky diaphragm, it allows the patient to so place his head that the mentho-glabellar line is practically horizontal, and when the cloth strap of the Bucky is fastened over the patient's occiput, the head is held in sufficient restraint, and the patient is able to breathe, except while the film is being exposed. At a distance of twenty-eight inches, the central position of the tube is determined by a line which will throw the petrous portion of the temporal just above the lower border of the orbit. The central ray is directed toward the tip of the nose. The angle of the tube varies according to the individual skull, and may be designated as between thirteen and eighteen degrees. With surprising regularity the films are now being made in this laboratory so that in one film the temporal bone lies well up in the orbit, and in the second film it does not encroach on the antral shadow by more than one-fourth to one-half inch.

FRONTALS.—The frontal shadows are well seen on the antral films and although they are slightly decreased in size due to angulation of the tube, this does not interfere with the interpretation of pathology present.

SPHENOID AND ETHMOID CELLS.—In a manner quite similar to that employed by Granger, and with the head resting on the bakelite sheet, on "eyebrows and upper teeth," the tube is tilted through about twenty-three degrees. Although Granger uses an angle of 107 degrees, and our method gives us an angle of about 113 degrees, the G-line which he describes often lies at a slightly lower level than he shows by his films. The ethmoids are more clearly seen.

EXPOSURE.—Five-inch spark gap between points, 20 ma. seven seconds exposure. When using the Bucky diaphragm, it is easier to tend toward films of beautiful bone detail, at the expense of showing softer tissues.

To these two pairs of stereo films we add a lateral, in order to rule out absent frontals, very large sphenoids, etc.

As to a brief description of the pathology with which we are dealing:

A normal sinus does not readily become infected. If by chance an acute infection sets in from teeth or nose, healing is rapid unless by virtue of the presence of structural changes in the nose such as a deviated septum, consequent atrophy or hypertrophy of the turbinates, con-

tact, spurs, swelling of the nasal mucosa, occlusion of the ostia of the sinuses. Due to any of these changes, with interference of normal aeration and drainage of the sinuses, and constant accretion of new infective material, the sinuses soon reach a stage when they fail to withstand infections. And in many cases, the roentgenologist who knows pathology and etiologic factors is able to state these from his X-ray films without clinical examination. This, of course, constitutes somewhat of a "grand-stand play," and it is only by a hearty spirit of co-operation between men that the roentgenologist is enabled to check his findings and impressions.

The clinical history usually points out the acute infection, with its hyperemia, œdema, cellular exudates and possible purulent exudate over the mucous membrane. This type does not frequently come to X-ray and it is the chronic case which taxes the acumen of both X-ray and transillumination and the rest of the clinician's armamentarium.

Van Zwaluwenberg has described this pathology thus³: "With a greater duration of the process, rather divergent processes appear depending on factors with which we are not entirely familiar. On the one hand, the process may become frankly purulent, the mucous membrane become atrophic, the submucous layers become sclerotic, and through the irritation of the periosteal layers of the submucosa, extensive sclerosis and osteoplastic changes result in the bony septa and walls of the sinuses. These processes are extended by continuity along the bony structures of the lateral walls of the nose to the origins of the turbinates, causing hypertrophies and increased densities. These in turn encroach upon the air spaces of the nose, and by their deformities and the attendant hypertrophies of their mucous membranes interfere with the drainage of the sinuses and establish a vicious circle. The formation of polyps at the points of greatest irritation by the escaping exudates further complicates the situation and tends to maintain the inflammation in the sinuses.

On the other hand, the changes in the mucous lining of the sinuses may take the form of an extensive edema, with a hypertrophy of the lymphoid elements and the mucous cells of the membrane leading to the so-called polypoid degeneration. The effect upon the underlying bony tissue is not that of an osteoplastic but an osteoclastic and osteoporotic change—the septa lose their lime salts and appear to shrink. These

changes also are transmitted to the adjacent nasal structures with a corresponding reduction in the density and size of the turbinates. In the cases of the upper and middle turbinates the mucosa is usually reduced in thickness and in density. The effect on the X-ray plate is therefore the entire occlusion of the upper nasal passages with an abnormally free space below the level of the lower margin of the middle turbinates.

The differences in the histological pictures within the sinuses are well summarized by Skillern⁴ on the following counts:

1. The purulent type shows a general metaplasia of the ciliated epithelium where it comes in contact with the secretions; the hypertrophic type shows such changes only at points of pressure or contact.

2. The purulent type shows a sclerosis of the submucous connective tissues; the hypertrophic shows a dilation of its meshes and lymph spaces.

3. The purulent type shows extensive round cell infiltration; the hypertrophic does not.

4. The purulent type produces a primary atrophy of the glands; the hypertrophic type produces a hypertrophy of these structures.

5. The purulent type leads to deposition of bony tissues in the subperiosteal layer; the hypertrophic leads to osteoporosis.

This last item is of supreme interest to the roentgenologist.

While polyps occur in both types of disease, they are largely confined to the intranasal structures in the purulent type of the disease, while the entire ethmoid labyrinth and the maxillary sinuses are usually filled with large masses of these structures in the hypertrophic type. For this reason it is usual to speak of the latter as "polypoid disease." We greatly prefer this designation because of the contradiction between the predominant X-ray findings and the descriptive content of the adjective "hypertrophic."

On clinical grounds, the nasal surgeon also recognizes these two types of chronic infection of the accessory sinuses. This classification is apparently made principally on the changes in the mucosa and the nature of the exudate found in the cavities of the sinuses.

The purulent type is distinguished clinically by a distribution limited to one or a few related cavities, by deformities of the septum and hypertrophies of the turbinates, the occurrence of a few polyps about the ostia of the sinuses, and the escape of free pus from their interior. The latter feature is the principal evidence on which the surgeon bases his diagnosis.

The hypertrophic or polypoid type has a more widespread distribution; it is less commonly associated with deformities of the septum, shows atrophy instead of hypertrophy of the lower turbinates, involving the bony as well as the soft tissue elements of these structures; but the outstanding feature of many cases is the extensive degeneration of the mucosa of the upper nasal passages and of the accessory sinuses. The picture within the nose is often that of an "atrophic rhinitis."

The above statement that polypoid disease is usually widely distributed is at variance with the usual texts. For instance, the best text at hand makes the following statement:

"While pansinusitis of one side is uncommonly met with, that where all the sinuses are simultaneously involved belongs to the greatest rarity."

Unilateral sinusitis of the antrum is rare, several sinuses usually being involved. When unilateral, it frequently involves all the sinuses of the affected side. Bilateral sinusitis may affect any two or more of the sinuses. Lesions may be localized in the sphenoids and ethmoids, or both, bilaterally or singly.

From observation of a large number of cases, it was his observation that these two processes were essentially distinct from the beginning and represent a different response to similar stimuli or different response to different stimuli.

You, too, no doubt, have observed that dental abscess, septal deformity, intranasal pathology appear to lead to the purulent type of disease, and that acute injections are followed by purulent processes, while focal infections leading to arthritis, iritis, retrobulbar optic neuritis less frequently than the above, but usually lead to the purulent type. Asthma more frequently follows the polypoid type of disease. Other respiratory infections bear a close relation to sinus infections. Of these, descriptions are new, and it is impossible to state which type is most frequently associated with them. Dunham and Skavlem⁵ found that out of 389 patients referred by able clinicians as tuberculosis, 28 per cent were found to be suffering from other foci of infection. In the vast majority of cases, the primary focus was found in the sinuses.

The sinuses in the order in which shadows are most easily distinguished are probably maxillary, frontal, sphenoid, ethmoid and percentages of efficiency have been arbitrarily placed as follows: maxillary 85 per cent, frontal 75 per cent, sphenoid 40 per cent, ethmoid 25 per cent.⁶ We

feel that the latter percentages can be raised somewhat by newer methods.

Errors may in many cases be attributed to the following factors: A surgical examination is made and cocaine and adrenalin administered. The patient is then sent to the X-ray, and between examinations the patient blows his nose, draining the sinuses. The X-ray returns a negative diagnosis. Later, when pus has accumulated, the surgeon wonders why the X-ray shows no abnormal shadow. Such cases prove the absence of granulations at any rate. On the other hand, when the roentgenologist finds a positive antrum, and the surgeon obtains no pus on puncture, the indications favor granulations or polyp. Or a positively reported antrum may reveal absence of the antrum, less commonly there may be a double antrum. Then the report of a positive opaque antrum may be confusing because the surgeon opened the anterior clear half and left the posterior purulent half.⁷

In acute purulent sinusitis, the only changes definitely made out are gross opacities over the sinus areas. The surgeons can do this readily enough by transillumination and clinical history. Very frequently, however, fluids of the density characteristic of acute infection fail to cast a shadow. Or in a case of bilateral involvement, it may be difficult to find a standard by which to compare a suspicious density. In 75 per cent of cases, however, the exudate of an acute infection is unmistakable and by films made before and after drainage of a maxillary empyema, distinct differences of density are noted. When the roentgenologist can see early chronic changes, or call added attention to deviated septa, hypertrophied superior turbinates and other factors favoring chronicity, he is proving an invaluable aid to the surgeon.

Acute polypoid disease is rare, and a diagnosis may be made in rare cases by fine differentiations of densities, but as a rule, the diagnosis is not made by X-ray.

Chronic sinusitis requires real diagnosis. A patient is referred to you with a complaint of post-nasal discharge, periodic headaches coming on at certain times of day, vague eye troubles, occasionally symptoms of a respiratory tract infection simulating incipient tuberculosis, asthmatic attacks evidently due to infection. You place your films before a viewing box, and all the sinuses appear clear. Possibly another case in which your reading will have to be a negative one, and you realize that as to sinuses a negative reading is always hazardous. But if you study

these films stereoscopically, you will realize that your diagnosis ends, not upon gross findings, but the rather indirect evidence.

In chronic purulent sinusitis, the findings are usually unilateral, with involvement of the ethmoids and sphenoids as well. Osteoplastic changes are seen in the sinuses and contiguous portions of the nose; the roots of the turbinates, particularly the middle turbinate, are thickened and hazy. The antrum usually shows thickening along the floor and on the nasal side and the floor level may be considerably higher than its mate. There is a diffuse opacity due to thickened anterior and posterior walls.

These slight changes are occasionally more definitely brought out if the ethmoids and sphenoids are first studied, thereby training the eye to the finer changes seen in the other fields.

The frontal sinus, by virtue of its flatness, and the fact that its anterior and posterior walls are combinations of the cranial diploë may be confusing if one attempts to see thickening of the sinus walls. The infundibulum, however, usually shows distinct changes, and here, too, the X-rays strike the walls tangentially, thereby increasing one's ability to see fine changes. This can be seen beside the lateral walls of the upper nasal fossa, except when they are absolutely normal, and since change visualize this area, they constitute a valuable diagnostic sign. Lateral films are necessary to guard against an absent frontal sinus, which appears to be an opaque frontal. If for no other reason than its ability to depict the anatomical structure, size, and anomalies, the X-ray proves its value to the surgeon in cases of frontal sinusitis.

Granger's method is of assistance in demonstrating the ethmoid cells, but after all, stereoscopy plays a more important part. On account of their small capacity and their position, their ready involvement by any infection present in frontal sphenoid or maxillary sinus; and the changes which can be made out in their bony trabeculae they form interesting material for study. A maxillary sinusitis without involvement of the posterior ethmoids is most frequently due to dental pathology. Solitary infection of the ethmoids is rare. Anterior ethmoiditis is less common than posterior involvement, and when it does occur is usually due to a frontal sinusitis. In chronic changes the fuzziness and haziness of the bony trabeculae with slight opacity when compared to a clear opposite ethmoid forms the basis for diagnosis. Changes in the turbinates are not definite in these cases and such hyper-

trophies as are seen appear most often compensatory for septal deviations.

In radiographing the sphenoid, we have made use of Granger's contrivance and find that we are enabled to show the shadow of his G-line, and the shadow of the sphenoid region lying below it, to make diagnosis of acute sphenoiditis, polypoid sphenoiditis and chronic suppurative sphenoiditis with bone changes. In acute and polypoid sphenoiditis the line which represents the superior border of the sphenoid sinus is absent on the side affected, and the sphenoid shadow is somewhat increased in density. In the hyperplastic variety the bony table appears thicker on the affected side, but less sharply defined than in normal sphenoids or chronic sphenoiditis with bone changes, while in chronic sphenoiditis, the line is thicker, more distinct, and the subjacent region denser than normal. Normally, its walls are very thin, it presents a very clear area, and when opaque, the density is striking indeed, and can easily be made out by Granger's technique. A lateral film here, too, is of more value anatomically than in diagnosis, since the sphenoid varies much in size and frequently extends well under the sella turcica. We have seen one case in which the posterior part of the sphenoid was opaque while the anterior portion was relatively clear. This might not have been seen except on a lateral film.

Polypoid sinusitis shows an osteoporosis of the bony walls and a semi-transparency due to thickened mucous membrane. When generalized, the inferior turbinates stand out clearly, and appear atrophied, while the remainder of the nasal cavity and sinuses present a washed-out appearance, and one is inclined to blame the technician for unsatisfactory films. The major process usually is found in the ethmoid cells. Although probably due to chronic purulent infection, and of the nature of scars or protective factors in the development, they closely resemble the fibromata and myxofibromata occasionally seen. To what extent these are due to purulent infection per se or to irritation of some sort is undecided.

In these cases, the following case report is an example of the confusion which may arise from the very nature of such an infection. An intern in a tuberculosis hospital, at which monthly physical examinations of the chest, X-ray and sputum examination, were done as a routine measure on the members of the medical staff, developed a few suspicious rales in the posterior second interspace, and a suspicious shadow on

the X-ray film at the same location, and also symptoms of a mild chronic infection, with occasional headaches and vague arthritic symptoms. His sinuses were X-rayed, and a definite clouding was seen over the left antrum. A diagnostic washing of the antra was done, and the washings came away clear on the left side, but that of the right side showed mucous and shreds. No therapeutic measures were given, but the patient began to gain weight, seven pounds in three weeks, and after a month, X-ray showed that the shadow previously seen in the chest had practically disappeared. A month later, he contracted another cold, and this same process repeated itself, almost identical in all respects, even to the subsequent gain in weight. With the exception of a positive sputum, he had all the symptoms of a very early tuberculosis lesion. This only goes to show the similitude of such a chronic infection to an incipient tuberculosis.

Changes in the bones of the skull such as occur in the chronic purulent and polypoid disease are structural in type, and at intervals these cases are probably entirely free from clinically demonstrable infection in the nose and sinuses. The changes represent the result of repeated exacerbations of the latent infection and such cases warrant the same therapeutic and surgical measures as frankly purulent processes. An article by Shea⁸, in which he discusses embryology and anatomical changes in ethmo-sphenoidal sinusitis, a most interesting essay, should be read, and as well the discussion of this article.

The roentgenologist is sometimes at a disadvantage because the process has gone beyond the stage of acute infection, and has not yet reached the degree of chronicity which allows of osteoplastic changes, even though the surgeon may declare the process an obvious one.

It is gratifying to find the X-ray and the clinician producing distinct but identical diagnoses. When observations differ, a field for study opens, and when opinions differ, the observations of both men must be respected and adjustments made for the benefit of the patient, and in an attempt to arrive at the truth.

BIBLIOGRAPHY

¹The Roentgenogram in Inflammations of the Accessory Sinuses. Uffenorde, *Ztschr. für Hals, Nasen u. Ohrenheilkunde*. Berlin, 3-388, November 1, 1922.

²Further Observations with the Author's Sphenoid Line and Position for Making Radiographs of the Paranasal sinuses. Amedee Granger, *Radiology*, 1-6, September, 1923.

³The X-ray Diagnosis of Accessory Sinusitis. Van Zwaluwenburg, *Am. J. Roentgenology*, 9-1, January, 1922.

⁴The Present Status of Skiagraphic Interpretation as

an Adjunct in the Diagnosis of Catarrhal Affections of the Accessory Sinuses. Ross Holt Skillern, *Annals Otol., Rhinol. and Laryng.*, 31:855, 9-22.

⁵Sinus Disease and Lung Infections. Kennon Dunham and John Skavlem, *J. Radiol.*, 4:37, February, 1923.

⁶The Roentgenologic Diagnosis of Sinusitis. E. J. Hirtz, *Bull. et Mem. Soc. de Radiol. med. de France*, Paris, 10:232, November, 1922.

⁷Errors in Interpretations of Lesions of the Sinuses. Law. Am. J. Roentgenology, 10:301, April, 1923.

⁸Persistent Infantile Ethmo-Sphenoidal Sinusitis. Shea, *Southern Med. J.*, February, 1924.

PLASTER-CAST TREATMENT IN GONORRHEAL ARTHRITIS.*

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Of all the systemic manifestations of gonorrheal infections, gonorrheal arthritis is probably the most frequent and most important.

The earliest cases on record are five, reported by Sir Benjamin Brodie¹ in 1818, which we recognize now to have been undoubtedly gonorrheal arthritis.

It has been my privilege to have observed a large number of gonorrheal arthritis cases while on the urological service at Bellevue Hospital and my remarks on Plaster Cast Treatment are based mainly on the unusually rapid cures and good results obtained in this institution with this treatment. The cases that I have seen in practice have successfully borne out the efficacy of this method in handling this disease.

PATHOLOGY

This condition is caused by the lodgement of gonococci in the articular and peri-articular structures, which pass through the blood stream, from the primary site of infection.

There is a marked variation in the severity of cases, ranging from the mildest type with slight edema of the peri-articular tissues, to more severe types characterized by pus, ulceration of the cartilages, and even erosion of the bony structures.

As the inflammation subsides there is left a thickening of the capsule and peri-articular tissues and rarely, in severest cases, a true bony ankylosis occurs.

The general conception of gonorrheal arthritis is that it is a mono-articular involvement. My experience is that it is usually an involvement of several joints. A great deal depends upon the stage of the disease in which the case is seen. In the early stage of the infection multiple joints are involved. Later in the disease as the symp-

toms progress, there is a tendency for the majority of the joints to clear up, leaving one or more in a chronically inflamed condition. At this time it is more or less of a mono-articular involvement.

The relative frequency of joints involved are: the knee, ankle, hip, wrist, foot, elbow, and the other joints occasionally, including the lumbar spine. The knee and ankle are by far the most frequently affected.

DIAGNOSIS

Differential diagnosis of gonorrheal arthritis is sometimes rather difficult, especially in the later stages, but unfortunately the joint involvement usually occurs within two weeks of the onset of the gonorrhea.

In reviewing the past history of many of these cases, it is especially noted that no relapse occurred, unless there was a new urethral infection, and where a subsequent unurethral infection did occur it was always accompanied by gonorrheal arthritis and the main joints affected in the previous attacks were again involved.

Another very interesting fact I have noticed is many of these patients give a history of previous arthritis or an injury to the main joints involved, so that trauma of a joint seems to play a very important role in gonorrheal arthritis. This coincides with the relative frequency of joints affected, in so far as the extremities are more prone to injury.

Collings² reports that about 24 per cent of his cases gave a history of previous rheumatic fever or trauma of the joints.

A few of the histories of trauma that I have obtained are as follows:

1. Colle's fracture, 14 years previous.
2. Knee twisted from explosion of shell, in hospital three weeks.
3. Ankle injured by shrapnel, in hospital 6 weeks.
4. Crushing injury of knee 4 years previously, in bed three weeks.

Routine examination is essential and should consist of examination of the urethral discharge if present, or of the prostatic secretion, with the finding of intra and extra-cellular diplococci; blood Wassermann, and gonorrheal complement fixation test. Examination by a dentist and laryngologist to eliminate all extra-genital foci of infection. If diseased, the tonsils and teeth are given adequate attention, and if necessary removed. Roentgenographic examination of the

*Read before the Duval County Medical Society, by B. F. Woolsey, M. D., August, 1922.

¹Brodie, M. W., *Practitioner*, London, 88:34-45, 1912.

²Collings, C. W., *J. A. M. A.*, December 3, 1921.

inflamed joints (which most frequently shows synovitis).

The leucocyte count is usually within normal limits, ranging from 6,500 to 10,000, polymorphonuclear leucocytes averaging 60 to 70 per cent.

PROGNOSIS.

Prognosis depends greatly upon the promptness of which treatment is instituted and cures can be safely expected from 4 to 8 weeks of treatment in most cases. I have not observed any relapses or ankylosis with the plaster of paris cast treatment.

TREATMENT

As the majority of these patients suffer severely, relief of pain is the most important measure, which is best accomplished by complete immobilization of the inflamed joints by heavy plaster-of-paris casts, which serves a double purpose, in (1) that the joint is placed at complete rest, and (2) the patient is anchored to his bed. The cast should be applied, observing recognized orthopedic principles.

Local treatment of the prostate and seminal vesicles is instituted during the cast treatment, to eliminate the focus of infection. This materially shortens the duration of the disease.

Numerous gonorrheal vaccines and serums, typhoid vaccine, sterile milk, and sodium iodide have been used with varying results, but I have rarely seen permanent benefit derived from them. With the foreign protein injections there may be seen a temporary relief of pain, in proportion to the reaction, but usually the pain recurs in a few hours. However, occasionally, beneficial results are obtained from gonococcal vaccines and serums.

Weekly gonorrheal complement fixation tests of the blood is valuable during the course of treatment, as the positive reaction is lessened as the case progresses towards a cure.

METHOD OF APPLYING CAST

The "Hawley" table is very useful in applying casts to the lower extremities as the point above and below the inflamed part must be immobilized and frequently the lumbar spine and hip joints must be included.

As the knee is the most frequent site, the cast should immobilize the whole extremity, extending from above the hip to the toes. Using the leg as an example, the cast should be applied as follows:

1. Measurements are taken of the inflamed parts, as well as the diameter of the thigh and

calf, so as to observe reduction in the size of the swollen joints and atrophy of the leg muscles, upon each removal of the cast.

2. A cotton stockingette is applied over the entire leg that is to be immobilized, and over this is wound cotton batting. Care must be taken that all bony prominences and the painful joint are well protected with padding. The heel and popliteal space should receive several thicknesses of cotton.

3. A posterior splint of several thicknesses of plaster bandage is applied to the dorsal surface of the leg and foot, from the upper third of the thigh to two inches beyond the toes. This extension of the splint above the toes, when hardened, relieves the pressure of the bed clothes and is very important for the patient's comfort.

4. With the leg extended and partially flexed at the knee, and the foot held at right angles to the long axis, circular plaster-of-paris bandages are applied until sufficient strength is attained, reinforcing the knee and ankle. The toes are left exposed to note any impairment of circulation.

5. To hold the leg in this position a pillow can be folded and placed beneath the knee and the cast is left exposed to the air for twenty-four to thirty-six hours until it is thoroughly hardened.

6. The cast is removed in from ten days to two weeks, measurements again taken, the joint is carefully flexed a few times and if the pain and tenderness still remains the cast is reapplied as before.

7. The number of casts applied depends on the relief of symptoms of the affected parts, one to three casts usually suffice.

8. After final removal of the cast with the entire disappearance of acute pain and swelling of the joint, the leg is given a heat bake daily, together with gentle massage. Direct sunlight is an excellent bake.

If the cast is applied carefully observing orthopedic principles, the relief of pain immediately follows fixation. Even those cases where anesthesia is necessary to apply the cast, are perfectly comfortable with cast immobilization.

CONCLUSIONS

1. Previous trauma of joints predispose those joints to gonococcal arthritis.

2. Once gonorrheal arthritis, always gonorrheal arthritis with each subsequent gonorrheal urethritis.

3. That the plaster cast, if properly applied, will relieve pain in the joint, prevent ankylosis, and materially shorten the period of cure.

The Journal of the Florida Medical Association

Owned and published by the Florida Medical Association.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of Congress of October 3, 1917; authorized October 16, 1918.

Published monthly at St. Augustine and Jacksonville. Price \$3.00 per year; 30 cents per single number.

Contributions for publication in this journal, whether scientific papers or reports of County Secretaries, should be typewritten.

Address Journal of the Florida Medical Association, St. Augustine, Florida, or 201-202 St. James Building, Jacksonville, Fla.

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SHALL THE PLEA FOR THE INSANE REMAIN UNANSWERED?

The editorial staff of the JOURNAL is particularly hopeful that every physician receiving this publication will carefully read the article by Dr. T. A. Neal entitled, "A Plea For Saner Methods Of Examining Suspects For Insanity."

Primarily, the act of depriving one of personal liberty is a serious proceeding. Individuals have been known to spend countless thousands to avoid incarceration for a single hour. Nations have engaged in fierce combat over problems of humanity relating to the issue of liberty.

To deprive one of liberty and place him in an environment wherein, because of mental clouding, he cannot raise a voice in protest or a hand in defense and there, by virtue of a defective system, subject him to neglect, accidental, incidental, intentional or otherwise, is inexcusable beyond expression.

The occurrence of mental clouding does not justify society in the figuratively existing practice of heaping embers of indignity upon a head which conceals an aberrant mentality.

Reliable psychiatric experiences seem to indicate prompt social recoveries in sixty per cent of all insane, if the cases are seen sufficiently early and properly treated.

Criminal proceedings, aimed towards punishment of violators of laws by deprivations of personal liberty of the guilty, basically provide, under the almost sacred constitutional rights of our American citizenry, that during the prosecutory proceedings, the person on trial, with his liberty in jeopardy, shall receive the benefits of the protecting arm of the law.

The insane are unintentional offenders against the law.

The insane seem to lack protecting influences.

Mental illness does not usually justify the therapeutic application of jingling keys, bolts nor bars.

The peaceful atmosphere of a quiet and secluded hospital would seem more in keeping with the ideals of our advanced American civilization, relative to treating the sick.

The early curability of psychoses depends upon the correction of correctable defects, be they syphilis, tuberculosis, alcoholism, auto-intoxication or other causative factors.

The hasty transfer of a mental patient to a crowded insane asylum rather than to the psychiatric ward of a general hospital wherein the

patient could be made the subject of critical study by a group of specialists, is open to serious consideration.

Certainly no person can doubt the wisdom of having a deliberate, thoughtful, painstaking study, by a competent, qualified, compensated lunacy commission, before any recommendation for disposition is made. This study should contemplate the existence of mental disease, primarily. If mental disease is found to exist, the cause of insanity is as important for determination, as is the demonstration of a motive for a crime.

With cause determined by medical, surgical and laboratory study, treatment either in a well-regulated hospital, under conditions offering encouragement for prompt recovery or in a State hospital, if chronicity is probable, seems to be a rational procedure to advocate.

In mental illness, where early cures may be accomplished in a special department of a general hospital, the odium of having been declared insane, may, as Dr. Neal has suggested, be avoided.

Mental cases, with social recoveries, but showing frequent, short recrudescences, could be more economically treated, locally, than by transfer to a State hospital, distantly placed.

The criminally insane should be permanently institutionalized.

The insane criminal should be looked upon with an attitude of grave consideration as to the wisdom of permanent custodial care.

The remarkable recovery rate, among both classes, when free from the toils of the law, is probably without parallel elsewhere in medicine.

A state lunacy commission, composed of competent alienists, as a group, to offer unbiased opinion in criminal proceedings wherein insanity is an issue, is a much-needed institution.

May Dr. Neal's plea find echo in the minds and hearts of all physicians.

May the message find voice as he would desire.

May the sounds of the voice touch the most resonant tones of the heart-strings of human sympathy among our people.

May Florida, through its medical fraternity, its people and its Legislature announce to humanity at large: "We recognize that the insane person is ill, he is not a criminal, he needs not association with criminals in a felon's cell; he shall receive at our hands all necessary aid from medical science and such assistance that an en-

lightened, sympathetic and charitably disposed public can bestow."

AN OBLIGATION.

The growth and development of every State Medical Association is largely dependent upon the activities of its Councilors. When a Councilor accepts his appointment he assumes the responsibilities which go with the office.

It is to be hoped that every Councilor this year has visited every county society in his district and in this way has furthered the development of organized, progressive and ethical medicine in our State. It is only a few weeks before our annual meeting convenes and this should be a stimulus to every councilor to take up in earnest all of his duties which he obligated himself to do when accepting his appointment at the hands of the House of Delegates.

In recent years all of the Councilors have not rendered an annual report before the House of Delegates of their activities during their terms of office. The JOURNAL anticipates publishing the report of every Councilor for the year 1923-1924 in its June issue.

Hereto is attached Section 2 of Chapter 7 of the By-laws of the Florida State Medical Association:

Section 2—Each Councilor shall be organizer, peacemaker and censor for his district. He shall visit each county in his district at least once a year for the purpose of organizing component societies where none exist, for inquiring into the condition of the profession, and for improving and increasing the zeal of the county societies and their members. He shall make an annual report of his doings, and of the condition of the profession of each county in his district to each annual session of the House of Delegates. The necessary traveling expenses incurred by such Councilor in the line of the duties herein imposed may be allowed by the House of Delegates upon a proper itemized statement, but this shall not be construed to include his expense in attending the annual meeting of the Association.

THE WRITING OF MEDICAL PAPERS.

The writing of medical papers is viewed by many practitioners with indifference. Feeling that they are called upon to occasionally appear in print, they set about the task with the idea of penning an essay that will not be open to much criticism, and at the same time will entail a minimum amount of effort. The end result is in most

instances obviously disappointing to the reader. Quite apropos is the following paragraph:

"It might be supposed that anyone who wished to write would know what he wished to write about. But many merely wish to write. To recommend that such a person choose a subject which he knows well, is not so superfluous as it seems. What is well known seems commonplace, and only the unfamiliar allures. But obviously the unfamiliar must be left to someone to whom it is familiar.

The very process of limiting the subject to managable size will inevitably result in suggesting something to say about it. The ideas suggested may arise very disconnectedly and in very crude form. The first thing to make sure of is that you catch and fix them all."¹

Several treatises on the writing of medical papers have been published; one of the most valuable is "The Writing of Medical Papers" by Maud H. Mellish, of the Mayo Clinic. This small volume is practical from beginning to end, and points out many errors commonly made. The preparation of the bibliography and references is gone into very carefully and a table of standard abbreviations for medical journals is appended. The American Medical Association also publishes a style book that is quite valuable. It is well for anyone writing on medical subjects to procure one or more of these treatises and endeavor to follow some definite plan.

Most of us are prone to lose sight of the wealth of knowledge that accrues from a careful review of literature pertaining to any one subject. If every writer carefully analyzes all available literature relating to his subject, he acquires a wealth of information of a systematic type. Let him set about his task with a will to obtain all the available information pertaining to his subject.

Many of the papers appearing in our publications are prepared without bibliographies and here is the one index to the paper's character; quoting an editorial from *The Journal of the American Medical Association*:

"There is hardly any one detail of a well-prepared and well-written article that will give a better and clearer idea of the writer's methods, or fasten a greater confidence in

the accuracy and soundness of his views than well-chosen, well-arranged, absolutely correct references."²

The pages of the journal should be filled with carefully prepared original articles dealing with pertinent subjects.

Every article should be written with deliberation and care, and in so doing, the writer benefits the readers of our publication; but most of all, he benefits himself by the vast amount of information he gleans in covering his subject.

CESARIAN SECTIONS.

A recent survey, for the purpose of securing information relative to the normal percentage of Cesarean sections in hospital maternity cases, has shown that the Chicago Lying-In Hospital reports 2,725 deliveries and 78 Cesarean sections, a percentage of 4.8 per cent. These figures are from a maternity hospital wherein the service is under the direction of an obstetrician of nation-wide reputation.

Contrasting the figures from the Chicago Lying-In Hospital, it is found that the Presbyterian Hospital, Chicago, reports the occurrence of Cesarean section on twenty occasions among 450 deliveries, resulting in a percentage of 4.44 per cent.

Doctor M. T. MacEachern, for many years superintendent of the Vancouver General Hospital, Vancouver, B. C., is accredited with the statement, based upon four or five years during which time he was in charge of the obstetrical service at the Montreal Maternity Hospital, that the percentage of Cesarean sections was about two per cent, but that at the Vancouver General Hospital, in which institution there is a policy of an open staff, the percentage of Cesarean sections ran as high as eight per cent. Doctor MacEachern is of the opinion that about 1½ per cent represented the minimum and that 8 per cent certainly represented the maximum, and that with the occurrence of the maximum number of Cesarean sections a careful study of the situation is indicated.

Recently compiled statistics from the Montreal Maternity Hospital shows that there were twenty-one Cesarean sections out of 1,336 cases, a percentage of 1.5 per cent.

A report of the University Hospital of the University of Michigan, for the year ending June 30, 1921, indicates that there were three Cesarean

¹Manly, J. M., and Powell, J. A.: *A Manual for Writers*. Chicago, University of Chicago Press, 1913, pp. 25, 23, 99-100, 158, 159, 36-38, 39-40, 45-65, 12-13, 21, 15, 179-185, 210, 167.

²Editorials: (1) *The Importance of Correct References*; (2) *The Medical Editor—Some of His Problems*. *Jour. Am. Med. Ed. Assn.*, 1916, iii, pp. 29, 30-31.

sections among two hundred and forty-eight obstetrical cases.

With the event of standardized hospital programs under conditions which predispose to frequent staff conferences in all such hospitals, with a critical survey of the statistical information, based upon the medical and surgical activities from month to month, it has been shown that greater reluctance is manifested by attending obstetricians, in the matter of performance of Cesarean sections, than was previously the practice when the results of medical and surgical activities were not so frequently made the subject of study.

In Florida many obstetrical cases are taken to hospitals only because of unusual complications having arisen with the patient in labor at home, necessitating hurried removal to the hospital. The statistical proof from the Florida hospitals showing conclusively that with higher standards of hospitals there is an ever-decreasing percentage of Cesarean sections. The result is a glowing tribute to the theory that with standardized medical education the result in the practice of medicine and surgery does not so much depend on individual ability of the physician but upon the type, character and extent of equipment which the communities supply their doctors with which to work, namely: high-class hospitals, adequate medical and surgical armamentarium, and competent, trained nurses.

Florida has insufficient number of hospitals, but public education has surely demonstrated that more and better hospitals are assured for the future.

A GUARANTEED DIVIDEND FOR DOCTORS.

The greatest achievement of the twentieth century will probably be accredited to humanity's present awakening to the benefits of group effort in behalf of mankind.

The springing up, all over the land of civic organizations, wherein men meet on a non-political, non-sectarian, unselfish, common ground, for the united purpose of building better men and better women; yea, demanding the right to spend time and money seeking to lift and love the underprivileged, has developed an activity among doctors that seems to visualize and to have already realized for the medical profession a secure and enviable position in community leadership.

The common ground for doctors seems to be in the harmonious operation and development of hospitals.

The affairs of hospital conduct and operation offers a place for every doctor: "Be he ever so humble."

The consideration of any element of the hospital programme calls for expression of professional opinion.

Analysis of a hospital effort lends experience, indicates sources of error and points the way towards avoidance of subsequent mistakes.

Improved and standardized hospital programmes lessen human suffering, reduces the occurrence of chronic invalidism, shortens the time of illness, has increased the span of human life and last, but not least, has made of doctors better men.

Every hospital, no matter how small, how remotely placed or poorly equipped, has to meet problems that all doctors may profit by if the information should become available.

The JOURNAL proposes, as a result of communications that have and will be sent to all hospitals in Florida, to keep the profession advised of hospital progress and of hospital news everywhere, through our columns.

If a surgeon devises a new method, an internist discovers a new diagnostic sign, or the pediatrician a new method of keeping the baby's milk from regurgitating, all while on duty in some hospital, every doctor in our society should be advised of the same.

Hospital staff secretaries should send in to the JOURNAL headquarters any information arising in hospitals that may be helpful to us all.

Hospitals are striving for better results and will grow and improve and be the means of demonstration, by doctors, as the matter can in no other way be demonstrated, of the wonderful role the medical profession is playing in human uplift.

ANNUAL REPORT OF DUVAL COUNTY HOSPITAL FOR 1923.

THE PRESIDENT AND MEMBERS OF THE BOARD OF CHARITIES OF DUVAL COUNTY, JACKSONVILLE, FLORIDA:

I have the honor to submit for your information and consideration the annual report of the medical and surgical activities of the Duval County Hospital for the year 1923.

In spite of the numerous handicaps offered

by out-of-date buildings, poor equipment and an entirely inadequate bed capacity much has been accomplished in the last year.

When the original Board of Charities assumed control of the Duval County Hospital it was decided through the initiative of its Chairman, Mr. Richard P. Daniel, to elect a permanent official staff with powers to act and develop according to arising needs.

The present staff organization is the result of that policy. Two years' of progressive service justifies the success and benefits to be derived from a small, permanent official staff. At present, it is the policy of this official staff to retain all members of the associate staff that prove themselves worthy. In order that the members of the board may have an intelligent understanding of this policy I propose, in the course of this report, to cite some of the reasons for same.

First and foremost, it is vital that we keep before us the fact that we are dealing with an all-charity hospital. For this reason it behooves us to strive to build up a high-grade machine that will function with the least amount of friction and lay itself liable to the minimum of criticism. I fear no contradiction when I assert that any business which is subjected to repeated changes in its personnel cannot, and does not, function intelligently or successfully.

Experience proves that the conditions which constitute the environment of any hospital are constantly changing. Social changes, community growth and scientific discovery create new demand. Healthy hospitals are growing hospitals. A hospital which begins as a medical boarding house is eventually called upon to participate in health education; in the clinical training of medical students; in post-graduate teaching; in scientific research. Time demands a larger maternity department, a "Tonsils Clinic," a children's health centre, etc., and the hospital must be in position to accommodate itself to every reasonable demand. It requires a professional staff not only of the highest possible medical attainments but one continuously in personal touch with the hospital's activities to best further this progressive growth.

The Committee of the American Hospital Association on "Out-Patient Work" has to say regarding its professional staff as follows:

"The professional staff of the 'out-patient department' should be drawn from the hospital staff and not be a private or separate staff.

The director, or responsible head, of each service should be *continuously* in charge. Each department of the out-patient clinic should have a chief who should be continuously responsible for carrying out the medical policies and maintaining the working standards of the clinic.

Internes should be assigned duties in the clinic, under staff supervision.

Staff conferences for discussion of both ward and clinic cases should be held at regular intervals.

In order to promote co-ordinated medical work, the professional responsibility for each patient at any one time should be fixed upon a *single* department or *physician*.

All doctors are not ready and willing to give the time nor do they possess the attitude, the patience and *especially* the professional qualifications incident to this special task."

If the above conclusions, applied to an "out-patient clinic," are correct in the main it will not be hard to understand how much more necessary they are as applied to the hospital *in-patient* clinic.

Believing that the staff organization can best be elucidated by a dissection of one department, I select the surgical department, because it carries the greatest number of members and is my personal responsibility.

The surgical department, as in all other departments, has one head. In the past year the department has been subdivided into sections as follows: (1) Gynecology, (2) Obstetrics, (3) Roentgenology, (4) Anesthesia, (5) Orthopedics, (6) Urology, (7) Ano-Rectal diseases and (8) General Surgery. In each one of these sections a physician of special training in the particular work required is placed in charge and given a free hand in the development of that section. He adds additional associates as needed. He is responsible for all the patients, and the professional service rendered in that section. He makes a full report of all activities in his section semi-annually and offers any practical suggestions looking to its improvement; he also offers any constructive criticism. All additional associates must be approved by the department head. In this way we retain a personal pride and interest in all phases of the department. We also encourage a friendly competition. The efficiency and practical results culminating from such an organization should be readily understood. Every man in the department is on his toes to retain

his position on the staff and every section chief is always seeking to improve his particular service. Associates in sections can be, with the approval of the department head, displaced by their chiefs. The chiefs of sections can be displaced by the department head.

Now let us consider this organization from the standpoint of the hospital and its sick inmates. The hospital reaps the largest benefits. It is not subjected to being constantly upset by varying ideas, untried and inexperienced methods. The hospital's medical case records are bound to improve in efficiency under the continuous dictation and supervision of the same men, especially if these men are of the highest type of doctor. In order that you may better appreciate this statement, I herewith inform you that a complete medical case history sets forth the following information:

"Identification data: Complaints: Personal and family history: History of the present illness: Physical examination: Consultations and special examinations: Pre-operative and pre-treatment diagnosis: Operation or treatment: Final diagnosis: Progress notes: Condition on discharge and follow-up." Such records, efficiently kept, are invaluable to posterity and medical science. On the other hand, if improperly or carelessly done, they fill no vital place and become mere trash.

The American Hospital Association, the American Medical Association and the American College of Surgeons will acknowledge and grade your hospital very largely on its medical records. A constantly rotating staff never has and never will take any pride in routine records. Knowing their time of service is limited, the feeling of responsibility is naturally lacking. The main thought under such a system is to satisfy their vanity by obtaining membership on the staff and using the clinical material for their own instruction and to their own ends.

Right here, it seems to me important that the individual members of your board should be made conversant with the minimum standard for hospitals set forth and required by the American College of Surgeons. I herewith quote:

"A—THE ORGANIZATION OF THE MEDICAL STAFF. A hospital, meeting the minimum standard, must have a *competent* and *ethical* medical staff to which certain duties are assigned as follows: (a) the drawing up of rules and regulations governing the professional work of the

hospital, (b) the supervision of the professional activities of the hospital in order that the highest degree of efficiency may be maintained, (c) the carrying out of staff conferences at regular periods, and (d) rendering of every assistance possible to the administration or management in the development and promotion of the professional work of the institution.

B—THE PROVIDING OF CASE RECORDS. In order to insure competent and satisfactory investigation and results in every *case* coming under treatment in a hospital, it is absolutely necessary that accurate records be prepared. 'A hospital without records is like a clock without hands, still running, but providing no information to tell whether it is right or wrong.' An accurate record is of inestimable value, not only to the patient, the doctor and the hospital but also to the advancement of scientific medicine and research. A physical accounting is required in every thoroughly competent hospital. This accounting can be carried out only when the findings, the facts and conclusions on every case are properly recorded. Moreover, the record must have behind it the spirit of honesty and sincerity and be a filtration of scientific facts leading to a definite conclusion.

C—THE PROVIDING OF DIAGNOSTIC AND THERAPEUTIC FACILITIES. In this regard special reference is made to the laboratory and X-ray services. These departments, when efficiently organized and under competent direction, are of inestimable value, both in making a diagnosis and in carrying out treatment. The minimum standard does not only require that these facilities be *available* for the benefit of the patient in the hospital but that they be *competently* and *scientifically* utilized whenever required."

We claim that the hospital's obligation to its medical internes and nurses' training school is best fulfilled by a permanent staff. Surely this statement admits of no argument. We claim that the *reputation* of the hospital depends largely upon the personnel of the professional staff. A rotating staff that will, in time, place every doctor, good, bad or indifferent, in your community on its professional staff can hardly hope to stand forth among the best in the land.

A competently organized medical staff stimulates better organization throughout the hospital.

A higher degree of ethics practiced among the attending doctors reacts beneficially on the nursing staff and internes.

Through efficiency, accuracy, and thoroughness on the professional side of the institution, a decided influence along similar lines finds expression in the work of all the other groups.

As regards the patients, it seems hardly necessary to call your attention to the advantages to be derived from such a staff organization as this. We do not change our doctor several times a year, because our intelligence cries out against it. If a patient in the hospital has been carefully studied by a physician, aided by the help of an organized and highly intelligent staff, then that patient has the right to be treated by that doctor. If at the completion of this study a new and probably less competent doctor steps in it will probably react to the patient's disadvantage. It is bound to cause a delay, possibly dangerous, incident to another study. The possibility of such patient being incompetently treated as the result of such a change should be readily apparent to all.

At the present time there are sixteen physicians giving their service in the surgical department. These men have been selected from the highest possible plane, i. e., their personal integrity and professional skill. Every chief of section is in accord with the policy of the department head in seeking out and developing deserving young men. A doctor that desires to remain as an associate in the department must give conscientious work; he must visit regularly and care for all patients assigned him; he must attend staff meetings and in all ways lend his service and brains to the progress of the work. As the volume of work increases, more and more of the right men will be added to the staff.

The high standard set by the American College of Surgeons as regards fee splitting will apply to each and every member of the staff.

It is the ambition of the official staff to build a machine that will advance this hospital to the top and in that way aid the board in giving the citizens of Duval County a charitable institution of which they will be justly proud.

Your staff, both official and associate, meets every third Tuesday in each month, at 8:15 p. m. At each and every one of these meetings some member of the staff is required to report, in full, a case, or cases that have been under his care in the hospital. At the conclusion of such report, there is a frank and full discussion by all the members, especially those having special knowledge applicable to the particular case. In this way

everyone receives information and education and the end result is the progress of the hospital and improvement in the professional care of the sick inmates.

The most vitally important advance for the hospital, accomplished by the staff, is the raising of its standard to meet the minimum requirements of the American College of Surgeons. Of all the hospitals of 100 beds in the State, only three have complied with such standardization. The Duval County Hospital is one of the three. This accomplishment is due entirely to the efforts of your staff.

It is justly claimed that four results of importance have resulted from the College's programme of hospital standardization, viz: (1) The shortening of the patient's day's stay in the hospital; (2) the preventing of any incompetent or unnecessary surgery; (3) the minimizing of the number of infections and complications; (4) the lowering of the hospital death rate. I might add for your information that it also enables your hospital to secure a better grade of medical graduate in its interne service.

The type of interne serving your hospitals will in time become the type of doctor to serve your community, your children and your grandchildren; therefore, the importance of raising the hospital's standard so the highest type of medical graduate will seek service therein.

The prospect of the occupancy of a modern hospital plant within the coming year is going to demand the intensive efforts and resourcefulness of everyone responsible for its launching. A good beginning leans far to permanent success. A large part of this burden will fall to your professional staff. It is with a feeling of much pride that I am able to present for your approval the development of Mr. Daniel's original idea into the present staff organization; also the individual doctors composing its personnel.

All high-grade hospitals publish in pamphlet form an annual report of its various activities. This information is valuable in many respects, especially to all persons interested in seeking trustworthy information.

Deans of medical colleges, where we apply for internes, are beginning to request these reports. In the interest of their graduates they feel it their duty to acquaint themselves with the standard of hospitals seeking internes from the colleges. A failure to furnish these reports creates an adverse feeling as to the hospital's efficiency. May

I request that the board correct this oversight by getting out such a pamphlet for 1923?

The annual reports from the five departments of the official staff are herewith attached. They speak for themselves and need no comment from me.

Much more could be said, but it seems to me the above should prove adequate. It is respectfully submitted for your information and approval.

President Duval County Hospital Staff.

MEDICAL INTEREST IN TAX REVISION.

Legislation of outstanding importance to physicians is now before Congress through recommendations made by the Secretary of the Treasury for a downward revision of federal taxes. Physicians will share, of course, in the benefits conferred on the people generally by such legislation. They are, however, among those who will be further benefited by the proposed reduction of 25 per cent in the tax on earned income, as distinguished from income from invested capital, since the incomes of physicians are largely, and in many cases altogether, earned incomes. Obviously, then, we, individually and collectively, should interest ourselves in bringing about this reduction.

Secretary Mellon makes no specific recommendation that will entitle a physician to deduct as one of his professional expenses in computing his federal income tax the cost of attending meetings of medical societies and of postgraduate study. His recommendations, however, are necessarily general in character, and possibly no inference should be drawn from the omission. It may be that certain proposed changes in the phraseology of the law are intended to afford relief, but it will be better if phraseology is used that will make relief certain.

Unfortunately, the recommendations submitted by the secretary do not provide for a reduction to a prewar basis of the now indefen-

sible war tax exacted from physicians under the Harrison Narcotic Law. Physicians have never complained of the original levy, one dollar a year, submitting willingly to it and to the inconvenience imposed by the law, for the sake of the good sought to be accomplished. Nor did we complain when, during the war, the levy was trebled for revenue purposes only. We do, however, object to being compelled to bear this burden now that the financial necessity for it has gone, and we ask that the tax be reduced at least to the amount originally fixed. There is no time better than the present for urging our demands, and we must seize the opportunity.

Relief from some of our tax burdens is now in sight, through the proposed reduction in the tax rate on earned incomes, and through the opportunities that are open to procure a reduction of the tax under the Harrison Narcotic Law and statutory provision that will permit the deduction of professional traveling expenses and the expenses of postgraduate study in the computation of the physician's net income. However, if physicians want such relief, they individually and collectively must make their influence felt. Every physician should write to his representatives, both congressman and senator, urging favorable action. Every county society should adopt resolutions expressive of its views and send copies to the Committee on Ways and Means, House of Representatives, Washington, D. C., and to the more interested senators and representatives. These societies should authorize and direct their proper officers and committees to follow up such resolutions, to see that they are effective, and to report back the results of their work. Later, when the bill has passed the House of Representatives and has gone to the Senate, appropriate action can be taken to acquaint the Senate with the views of the medical profession concerning the bill as it then stands. Relief in this manner may be obtained through our concerted, prompt, whole-hearted action.—*Jour. A. M. A.*

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THE JOURNAL

— OF THE —

Florida Medical Association

OWNED AND PUBLISHED BY THE FLORIDA MEDICAL ASSOCIATION

VOLUME X
No. 10

St. Augustine and Jacksonville, Fla., April, 1924

Yearly Subscription, \$3.00
Single Copy, 30c

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THE JOURNAL OF THE FLORIDA MEDICAL ASSOCIATION

PUBLISHED MONTHLY

Volume X

St. Augustine and Jacksonville, Florida, April, 1924

Number 10

ORIGINAL ARTICLES

HOSPITAL ORGANIZATION AND STANDARDIZATION.

JOHN S. HELMS, A. B., M. D., F. A. C. S.,
Tampa, Fla.

*Chief of Staff and Director Division of Surgery.
The Bayside Hospital.*

There are in the United States 4,013 hospitals with a total bed capacity of 311,159, exclusive of the State hospitals for the insane, tubercular, prison hospitals, and hospitals belonging to the United States Government. Including the latter hospitals there are between six and seven thousand.

Considering the number of hospitals and the enormous capital invested in hospitals, it seems a curious fact that only recently has the important question of hospital organization and standardization been studied. This is due in a measure to the fact that hospitals have been built largely by the activities of special interests or groups of individuals whose aims do not arise from consideration of the real needs.

The business world, the public at large, and the medical profession itself are being educated up to the fact that a hospital is a business as well as a professional organization, and that its buildings, organization, and its conduct requires business efficiency as well as professional skill. The taxpayers whose money goes to support and maintain charity institutions are beginning to ask pertinent questions as to what their money has accomplished, and what are the end results of this expenditure. Philanthropists no longer endow at random, but on the other hand, bring together all the information and skill possible for the planning, organizing and administering of the hospital, to the end, that the most can be accomplished with the greatest efficiency, at the smallest cost.

A community's response to the call for help on the part of its sick and injured, and disabled poor should be the actuating influence in building a community charity hospital. There are many types of municipal or community hospitals. Among the chief ones are: the strictly charity;

the part charity and part pay, i. e., an institution where the sick poor are treated free and accommodations are provided and maintained for pay or private patients. In the latter case the city or community may be considered as having entered the hospital business and may come into competition, often times upon an unfair basis. It often happens that not only the proprietors or stockholders in a proprietary hospital but the institution itself, pays taxes, part of which goes to support its competitor, the semi-charity community or municipal hospital. It therefore makes the survival of a proprietary institution difficult unless the conditions are extraordinary, such as a badly built, badly located, badly equipped, badly managed, and a badly served public hospital against a well-built, well-located, well-equipped, well-managed, and well-served proprietary hospital.

Make a Survey First.

It is obvious that any community or city that is considering the building of a hospital should make a survey of the hospital needs of the community as regards the amount of charity work done, the amount of pay work available, the number, size and kind of hospitals already in operation, the probability of others being built, the kind and amount of medical service available. Data upon these various lines should be correlated before a hospital is determined upon, or as to its real necessity or as to its location, type and size, carefully gathered and analyzed. Conditions may be such that in case there are good proprietary hospitals already in operation in the community that it would be the best, most economical, or efficient for the community to have its poor cared for by those hospitals, than to build, equip, and conduct its own hospital. Conditions may be such that a strictly charity hospital would be the most suitable to the given community, or the semi-private type most suitable to its needs.

Away From Crowded Districts.

When these points have been determined, the question of location is one of great importance

to decide. There is no one factor that has a larger influence in determining the usefulness or success of a hospital than its location. The modern tendency is decidedly in favor of locating hospitals away from the crowded districts of the city, neither is a close-in residential section desirable. The country environment, if located on a good plot of ground on a main thoroughfare and easily accessible to trolley lines, is perhaps the ideal location and is one of first choice.

There are many notable examples of this tendency. The new Wesley Memorial Hospital in Atlanta may be mentioned among many others that is responding to the modern tendency; this hospital is being built quite ten miles out. With the modern emergency station, usually located centrally at the headquarters of the community nursing service; together with the motor ambulance, and the staff members with their motor cars, all difficulties, delays and inconveniences are obviated, and the quick journey to and from the hospital adds pleasure to the daily grind. The quietude and pure air, and the environments of nature of the country lend themselves to the quick and pleasant convalescence of the patient.

The character of the buildings must be suited to the type of the hospital, its location and size. The simpler form of connected pavilion type with central administration unit, built preferably of fire-proof material, not more than two stories, and most conveniently arranged for service and sanitation, is perhaps the most suitable type for this climate. It goes without saying that the buildings should be provided with means of lighting, heating and ventilation. Particular attention should be paid to beautifying the grounds. The equipment should be modern in every particular.

The character of the organization should be determined to some extent by the type of hospital. Generally speaking, however, the plan of vesting in a board of directors the control and responsibility of administration, is the method more generally adopted with success. The board of directors in turn employ a competent superintendent who should assume the duties of executive officer, and should be responsible to the board of directors for the proper conduct of the hospital. The board of directors should be responsible in turn to the constituted authority responsible for their creation. The superintendent of the hospital should be a person of such technical and business training and such execu-

tive ability, as may be necessary to attain the maximum efficiency at the minimum cost.

Training School for Nurses.

A training school for nurses is in most instances a necessity to the proper conduct of a modern hospital. A proper superintendent of nurses, upon whom the responsibility for the proper training of the student nurse may be fixed, should be responsible to the superintendent of the hospital for the nursing service and the physical condition of the hospital and its equipment. The superintendent of nurses should co-operate with a suitably trained dietitian, who should be responsible to the superintendent of the hospital for the dietary. In some smaller hospitals it is practical and efficient to combine in one suitable person the superintendent of the hospital, the superintendent of nurses, and sometimes the dietitian, while in larger institutions it may be necessary to employ a housekeeper, and oftentimes a teacher for the training school of nurses.

The conduct of the training school of nurses, insofar as standards for curriculum and requirements of admission are concerned, is largely governed by law in this State. The intramural personnel of a hospital may include many other persons, such as surgical supervisor, night supervisor, a historian, anesthetist, and many other minor positions such as orderlies, cooks, laundresses, engineer, drivers, etc., all of whom should be responsible to the superintendent of the hospital.

Money is Necessary.

The problem of finances is always one of great importance in hospital administration. This is true of all types of hospitals. The lack of financial resources is often times a hospital's most serious handicap to efficiency. No hospital organization is complete until there is some adequate system of providing an income. In the average municipal hospital, whether strictly charity or semi-charity, this is usually done through the budget system, which works out very well provided no unusual conditions arise which might produce a deficit. In the semi-private municipal hospital where certain accommodations are set apart for private or pay patients many intricate questions often arise as to what rate for a given time should be charged against the pay patients. Often times these questions are settled by writing to some other hospital or hospitals for their rates and charging the same. This method obvi-

ously is totally lacking in business principle. The hospital or hospitals from which such information is secured may be employing the same method, or even worse, in regulating their rates. Other semi-charity institutions make an attempt to make the hospital self-sustaining in part or wholly by charging pay patients enough to carry the charity. This is an unjust penalization of the pay patients, who happen to be sick. On the other hand should an arbitrary rate be charged the pay patients, it may and does often so happen, that the rate does not pay the cost of his care—then he is unjustly a charge on the public funds. From basic principle the poor sick only should be the burden of the community.

It is obvious, therefore, that an accurate and efficient accounting system should be carried out in every hospital whereby the cost per patient per day is accurately known. There is no other just basis upon which the rate for pay patients should be charged. This rate should be subject to change agreeable to fluctuations of cost. There are often in municipal hospitals many items of cost that are not taken into account.

The Medical Staff.

The medical staff of a hospital should not only bring to it medical and surgical skill and judgment of the highest order, but also inspiration and high ideals of service. It follows, therefore, that the medical staff should be carefully selected and properly organized, for it is upon the medical staff that the final cure of the patient rests. The American College of Surgeons and its work on the so-called "Standardization" of hospitals has had much influence upon the betterment of hospitals and their medical service through its "minimum standard." Mr. Hawthorne Daniel, writing in *World's Work*, in June, 1919, has told the public what the American College of Surgeons is. He says: "The American College of Surgeons which began this work is an association of about 1,000 of the leading surgeons of the United States and Canada, and also includes representative men in South America and in many other countries. It was founded in 1913 as an honorary society similar to the Royal College of Surgeons of Great Britain, with the idea of promoting the highest ideals of surgery, and of improving conditions under which surgery finds it necessary to work."

The Minimum Standard.

After a careful analytical study of hospital conditions throughout the United States and

Canada extending over a period of two years, the college made a careful diagnosis of the causes of the lack of efficiency and formulated a remedy which is outlined in what is known as the "minimum standard." John G. Bowman, the director of the college at that time, said of the "minimum standard": "That standard is not the thought of a single mind. It is an expression which grew with straight thinking among the clearest minds in medical and hospital work on this continent. Its fulfillment costs effort rather than money. It safeguards the care of the patient admitted to the hospital by insistence upon competence on the part of the doctor, by thorough study and writing of each case, and by a checking up at least once a month of the clinical service of the hospital. It fixes responsibility throughout the hospital. It calls for the production sheets of the hospital. It encourages and even compels clinical research. It defines the minimum service to the patient, upon which, beyond all debate, we are agreed."

The "minimum standard" is as follows: That physicians and surgeons privileged to practice in the hospital be organized as a definite group or staff. Such organization has nothing to do with the question as to whether the hospital is "open" or "closed," nor need it affect the various existing types of staff organization. The word "staff" is here defined as the group of doctors who practice in the hospital inclusive of all groups such as the "regular staff", the "visiting staff", and the "associate staff."

2. That membership upon the staff be restricted to physicians and surgeons who are (a) competent in their respective fields and (b) worthy in character and in matters of professional ethics; that in this latter connection the practice of the division of fees, under any guise whatever, be prohibited.

3. That the staff initiate and, with the approval of the governing board of the hospital, adopt rules, regulations and policies governing the professional work of the hospital; that these rules, regulations and policies specifically provide:

(a) That staff meetings be held at least once each month (in large hospitals the departments may choose to meet separately).

(b) That the staff review and analyze at regular intervals the clinical experience of the staff in the various departments of the hospital, such as medicine, surgery, and obstetrics; the clinical

records of patients, free and pay, to be the basis for such review and analysis.

4. That accurate and complete records be written for all patients and filed in the hospital, a complete case record being one, except in an emergency, which includes the personal history; the physical examination, with clinical, pathological, and X-ray findings when indicated; the working diagnosis; the treatment, medical and surgical; the medical progress; the condition on discharge with final diagnosis, and, in case of death, the autopsy findings when available.

5. That clinical laboratory facilities be available for the study, diagnosis, and treatment of patients; these facilities to include at least chemical, bacteriological, serological, histological, radiographic, and fluoroscopic service in charge of trained technicians.

Dr. M. T. McEachern, of Vancouver General Hospital, recently said after years of practical administration of the standard: "The minimum standard is not, perhaps, so simple as it looks. But certainly it does not impose too great a burden of effort upon the doctor or upon the hospital. It calls for no undue expenditure of money. It is not impertinent, for it is based upon the sound principles of practice which the profession long ago accepted. It forces a constructive and co-operative scrutiny over all medical work in the hospital; unnecessary surgery, incompetent surgery, lax and lazy medical service, and all commercialism in medicine go down before it."

Again Hawthorne Daniel, writing in *World's Work*, says in part: "The statement is simplicity itself, and yet, with all its simplicity it contains just the suggestions that go to make good hospitals of mediocre ones; just the suggestions that lead to the conservation of lives and the elimination of unnecessary operations; just the suggestions that bring about the conscientious care that every patient in every hospital has a right to expect.

"From coast to coast the idea is changing the conditions in hospitals. Everywhere there is the ferment of development, the activity of improvement. In great centers of medical affairs the changes have been startling. In Baltimore, the greatest center of medicine in America, there is not a hospital of 100 beds or more that has not put into effective operation the Minimum Standard.

"In New York and other cities the hospitals

have made as great advance. The world of the hospital is changing. An advance normally to be expected in twenty years has come in three. For this opinion I am indebted to President Henry S. Pritchett of the Carnegie Foundation.

"The medical profession generally is to be congratulated upon the progressive work being accomplished by its many prominent members who are fellows of the College of Surgeons. In its membership the college includes the best men in the field, and there are few prominent surgeons in the country who are not on its roll.

"The medical profession is largely made up of men who are practical idealists. Sometimes, under the forces of circumstances, some of them may not have held entirely true to their ideals, but it seems difficult to believe that many of them have ever allowed their ideals completely to lose control. And with the program of the college to supplement their own beliefs they are throwing aside those methods that are open in the least to criticism, and of their own volition have renewed and increased their efforts to bring about the reforms in which they have always believed.

"It is with this elusive force that the college has worked with such success. With the ideals of the profession visualized, and with practical plans made to insure their application, the country may confidently look forward to a new era that is already partly here; when the hospitals of America will be institutions for service, from which selfish interests and careless methods have been abolished, and to which the country may look for considerate and efficient treatment, confidently expecting and receiving the utmost that the medical profession is capable of giving."

PUBLIC HEALTH.*

RALPH E. BARNES, M. D.,
Jacksonville, Fla.

It is indeed a pleasure to come before you this evening. As a new man in a new territory I was told by various people and in various places the fact, or rather supposed fact, that in Florida I would find thus and so, mostly so; that is, I was to find the people skeptical or not interested. Then, too, there was a word dropped now and then as to a certain peculiar make-up of these people here in Florida. Imagine my feelings then on arriving in this fair State. First, I was met,

*Read before the Orange County Medical Association, December 19, 1923.

if not actually with open arms, it was almost the same thing. In my talks and conferences with the various people and groups of people again imagine my surprise at their interest and desire for that something for which they had been longing and actually reaching out, willing to meet the newcomer more than halfway, in the hopes that here was possible one of the things for which they had been longing. In other words, to my utter astonishment and pleasure I found them to be friendly coworkers in a great cause, accepting me in the spirit of true Southern hospitality and hoping that thereby they would be able to receive, but in the receiving perfectly willing to give, in order to effect a co-operative basis. I come to you tonight in the spirit of mutual helpfulness. From the few talks and meetings I have had with some of you I find that to you has come a vision of things as they should be—a vision, if you please, that looks for a firmer foundation upon which to rear a structure, while nebulous in its entirety yet nevertheless real. A structure which you see as a necessity and one which requires a careful architect to plan and supervise in the building in order that it shall be a monument to the carefully laid plans of its originators and builders. May I now digress somewhat from the original of my theme this evening? The term "Public Health" has been a very much abused word during the past decade. It has been a term which has been largely aided and encouraged by the medical profession. I can say without exaggeration that without the active support of the physicians, public health as we know it today would not be the lusty, growing child that it is; it would on the contrary be a pale, thin, anemic, malnourished infant.

Let us first analyze this term "Public Health." What is it? What does it do? How does it act? What are the probable effects upon the medical world, and many other questions too numerous to include within the scope of this talk this evening.

In the old days when you and I were in medical school, Public Health was merely an arm of the law. One whose function, and that inadequately, was that of quarantine regulation, more especially to guard against contagious diseases by regulations and strict quarantine or isolation measures. In those days we had, or thought we had, two true specifics, and one preventive measure—smallpox vaccine. But what a change today! Public Health today is really aggressive prevent-

ive medicine. Today we are preventing, thanks to our medical scientists, a host of diseases long thought unconquerable. What a wealth of meaning is wrapped up in the names of such men as Lord Lister, Robert Koch, Pasteur, Walter Reed, Osler, Trudeau, Gorgas, and last but not least that grand old man, W. H. Welch. Due to these men and others just as great in their sphere, we have learned to control and prevent such scourges as yellow fever, typhoid fever, malaria, dengue, typhus fever, diphtheria, spinal meningitis, plague and others. Due to the rapidity of these discoveries of the last few years, preventive medicine has grown by leaps and bounds and with it Public Health has advanced so rapidly that one has a rather hard time keeping pace with the progress. Along with this advance in preventive medicine, curative medicine has kept pace until today there is hardly a condition which is not relieved in some way by the many newer remedies at our hand. Just the past year has seen a truly marvelous achievement in the discovery of insulin. Tools are placed in our hands today that were undreamed of when we were students. We have truly been living in a fearfully wonderful period.

Many have been the refinements of diagnosis and the elaboration of the various diagnostic aids marks a history of medical progress that so far out-distances the past performances as to be almost unbelievable. Yet we who have lived through this period know the correctness of these statements of achievements.

In the train of this wonderful progress has come a new public health, an activity in preventive medicine represented by two phases—closely allied and yet separate and distinct—respectively, the Public Health official and the voluntary Public Health worker. Both have their just and necessary work to perform. It is for the health officials to use all of the known and tried agencies of disease prevention in the protection of the health of the people in their respective spheres of influence, be it city, county or state. Upon them devolves the duty and upon them rests the responsibilities. On the other hand, the voluntary health worker has a field of very great importance. Unhampered by the necessary regulations governing one who is an executive health official, it is for the voluntary health worker to try the uncharted field of disease prevention, proving the falsity or value of a theoretical problem. In case it is practical and sound to them, they have

the satisfaction of seeing it incorporated into the official agency. To do this successfully requires that there be at all times the fullest co-operation of official and voluntary Health Agencies. They *must* work hand in hand.

Necessarily with this rapid advancement we today find ourselves face to face with this condition: A multiplicity of both official and non-official or voluntary agencies all dealing with the problem of Health—all dealing with preventive medicine. With the result, as is very evident overlapping and lost motion. This begets a feeling of distrust on the part of many. One is swayed by this or that particular field until one hardly knows just where to turn.

First came the National Tuberculosis Association in 1904, to be followed by others such as the American Child Hygiene Association, the Child Health Association, Society for the Mental Defectives, the Society for the Control of Cancer, another to control heart disease, still another on social diseases, and the list is by no means exhausted. This was inevitable. The rapid advances made this condition what it is and the chaos has been almost complete. Through it all and around it all has been the co-operation of the medical profession, bewildered no doubt by the rapidity of the movement, yet keeping apace with the progress. Back of it all one can not help but feel that in the race for the goal many times the health worker, be he official or non-official, has not gone to the profession as often as he should for guidance and counsel. This has handicapped him at times by leading him into by-roads and hedges of error where he has made many mistakes, which have compelled him to return to the straight and narrow path of scientific principles. So I say it is indeed a pleasure to come to you—the fountainhead, the real power—upon one of the most important questions before us today. Asking you, if you please, to take the needed lead in this great movement here in this county.

There are two sides to this question of Preventive Medicine. One is purely medical—scientific; the other is economic. In another sense one is individualistic while the other is collective. Take for example the question of periodic physical examinations now so greatly stressed—that is for the individual; on the other hand, water-works, sewerage systems and such kindred projects are community problems and must be worked out collectively. In many instances it is hard to decide where one begins and the other

leaves off, again we see them as interdependents.

Recognizing the implied need running all through the above narrative, the Florida Public Health Association is pledged to a course of action looking to the elimination of overlapping in the various realms of Public Health, seeking to perfect such machinery where possible, whereby the various activities can be correlated and combined into one working unit in the counties of this State.

We do not claim this as original with us, but believing in the justice of our plea we do not desire credit nor do we expect credit for that which belongs to another. We do believe that the time has come when some such action is not only necessary but vital to the whole program. Just the last year we see the final organization of a National Health Council, showing that the great leaders in this field are awake to the necessity of combining for the sake of preventing the very things we are talking about which also means financial stability.

It has therefore been necessary for me to lay a firm foundation upon which to rear a theoretical building. We are asking you to take an active part if not the lead, and I much prefer that you take the lead in the organization of a County Public Health Association. One that will be truly representative and one that will earnestly study the Health needs of this county. As long as we have the county as a political unit, will it be necessary that we have the county working as a unit. Without such an organization active in the county—one that will have the confidence of the people and which they will accept as their leader—just so long will there be chaos and indecision.

With an active county organization leading the people with a true leadership and outlining a definite course of action, a comprehensive program of health work, then and only then will we begin to get definite results and order be restored in this the greatest movement in the history of man. Yet I would have you go one step further in this plan and that is the furthering of a county Welfare Council where all of the organizations of Health and Welfare in this county can meet, or rather their representatives meet and discuss their problems together. Welfare and Public Health are closely allied one to the other, although not so closely that one can take the place of the other. Yet there is that band of mutual activities which should be a stimulus to both.

Therefore it should be and is desirable for these agencies to work together in the spirit of harmony and co-operation.

I have not touched upon these in detail. You no doubt are more familiar than I with the various organizations necessary to bring together in order first to form your Public Health Association for this county and then to form a clearing house for all health and welfare work. I will, therefore, leave this question in your hands, feeling that in doing so it will be in competent and capable hands and that the details will be easily adjusted and a strong, active organization be the outcome, to the end that the public health work of this county will be organized and stabilized.

I wish I had the time to give you some of the results of our work, particularly with reference to tuberculosis, but as you are all busy men I must not detain you with this tonight.

Sufficient to say that during the period since 1904 the tuberculosis death rate has been reduced one-half. This is truly a very remarkable showing, yet the work has only just begun—the hardest part of the fight lies just ahead. The results of the past certainly justify your continued and enlarged support so that our work can go on increasing in power and effectiveness.

RESEARCH ON TOBACCO.*

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In writing this paper I wish to give credit to *Good Health*, a journal devoted to race betterment, edited by Dr. John Harvey Kellogg, of Battle Creek, Mich., for a large amount of information given in edition December, 1920, January, February and March of 1921.

Tobacco contains a volatile alkaline, nicotine, in proportion of two to eight per cent, amount increasing with age of the plant. A cheap cigar contains from one and one-half to two per cent. A higher-priced cigar contains a little more. Later studies of tobacco have shown that it contains numerous other poisons besides nicotine—among others, prussic acid, collidine, thiotetra-pyridine, isodi-pyridine, nicotellidine and pyrroline. Nicotine is one of the most violent poisons, comparable to aconitine or prussic acid. According to Orfila, two drops of pure nicotine killed a dog of

average size. According to Vibert, the cat and the rabbit are killed by one-sixth of a drop, the dog by one-half to two drops. Leblance said a horse is killed by eight drops in four minutes. Apply one drop to the eye of a mouse or sparrow and they will die instantly. Tobacco smoke contains a crowd of noxious products among the chief of which are prussic acid, collidine, methylamine, pyridine, ammonia, formaldehyde, and carbon monoxide. From one-twenty-fifth to one-eighth of a grain of prussic acid is found in three and one-half ounces of tobacco. One cigarette can produce one to five cubic inches of carbon monoxide. It is evident that the aqueous solution of tobacco does not contain all the products or combustion of tobacco. Nicotine is a powerful vasoconstrictor. No matter in what way introduced, always causes a formidable elevation of blood pressure. This is due to the direct action of nicotine upon the muscular walls of the vessels. Later this vasoconstriction is followed by a paralytic vasodilatation. The pulse rate increases when the tension increases and slows when the tension falls.

Very large doses are required to produce an immediate diminution of the pulse rate. This paradox is explained by the toxic effect of the nicotine upon the pneumogastric nerve. Hypertension is due to the action of the poison of tobacco upon the general vasomotor center found in the bulb. Tobacco causes changes in the liver, slight changes in the kidneys. Hypertrophy of the heart is a natural result of a raised blood pressure. Examination of the heart tissue showed degeneration of the heart muscle, and lesions of the ganglia of the heart. Red blood cells are decreased and white blood cells are increased. Tobacco effects especially the brain and spinal cord. Vas, Pandi, and others have shown changes in the cortex of the brain and degeneration of certain nerve fibers. It is an error to suppose that the number of microbes in the cavity of the mouth diminish under the action of tobacco smoke, or that smoking renders the body more resistant to infectious maladies.

Disorders of Sensibility.

Tobacco may give rise to pain in any part of the body, especially in the region of the scapula and right hypochondrium. The false ribs and the sternum are frequently seats of pain. Tobacco headache is a very frequent symptom. It is a sort of intoxication. Tobacco causes insomnia frequently. Tobacco may give rise to still more

*Read before Orange County Medical Association, February, 1923.

serious symptoms, as amnesia, and tobacco aphasia. The use of tobacco before puberty gives rise to many manifestations as interlectual apathy, revery, melancholia, neurosis and psycho-neurosis and chorea. Tobacco neurasthenia is much more frequent and tobacco insanity is sometimes encountered.

In the March, 1921, issue of *Good Health*, it gives in conclusion, to-wit:

First—"Tobacco poisoning as shown in experiments on animals under different forms—macerations, aqueous solutions, insufflations, and breathing smoke—saturated air—gives rise to a series of functional disturbances in different organs. (a) Predisposition to abortion, (b) frequent diarrhea, (c) constant changes in the liver, hemorrhages and degeneration, production of a true cirrhosis according as the poisoning is acute or chronic . . . (d) The possibility of renal lesions, the kidney being less susceptible to injury than the liver. (e) The suprarenal capsules are rarely injured. Sometimes changes are observed coincident with artie atheroma. (f) Tobacco is in fact a poison to the arterial coats, but it acts slowly and through hypertension. (g) The brain always shows some notable changes, no doubt analogous to the manifestation of intoxication seen in the human beings. (h) the general state is more or less modified and more or less pronounced; emaciation is often noted.

Second—"Oriental tobaccos produce practically the same changes. Observation appears to show that they have a particularly injurious effect upon the nerves.

Third—"The germinal effect of tobacco, praised by many authors, varies with different species of microbes. While its influence is very pronounced in relation to streptococcus and staphylococcus, it is very small in relation to the bacillus of Loeffler and the pneumo-bacillus of Friedlander. Infusions, aqueous solution of nicotine have no effect. It is only the smoke which is active as a germicide, and this acts in the same way as any other smoke.

Fourth—"The so-called deniconized tobaccos are practically equally as injurious as ordinary tobaccos.

Fifth—"Abuse of tobacco produces in man a series of morbid changes affecting different bodily structures, many of which are well recognized: (a) Close relations existing between leucoplasia buccal and syphilis. (b) Dyspepsias. (c) Disorders of the larynx and lungs. (d)

Angina pectoris and intermittent claudication. (e) Profound injury of the nervous system. (f) Disturbances of hearing and vision. (g) The chickens derived from fowls, the males of which exposed to the smoke of tobacco during the night, were found to be feeble and many of them died. The children of women who work in tobacco factories are notably debilitated. The study of the embryos of pregnant animals subjected to the influence of tobacco showed the same effect in the liver and other organs as were produced in the adults. Cuzzi maintained that nicotine gives rise to abortion through its injurious effect upon the placenta, causing death of the fetus. Nicotine is a poison which acts upon the muscular fiber, and it may give rise to abnormal contractions of the uterus. Stolz noted the odor of tobacco in the amniotic fluid in the workers in the State tobacco factories. Ruef several times found nicotine in the amniotic fluid. Kostial found nicotine in mother's milk. Vinay confirmed this observation and attributed to this cause of digestive disturbances in infants which disappeared when they were taken away from the mother.

In conclusion I wish to state, that to my mind, after having used tobacco for several years in every imaginable form, and then falling ill, and during this illness, having a constant tobacco nausea, and after recovery for two weeks a repulsive feeling towards tobacco, that it has an injurious effect upon man and animals, nevertheless the goat can eat large quantities of tobacco apparently without injury. Once the tobacco habit is fastened upon one, it is indeed hard to break, but we all know that it is a non-essential to the maintenance of the human system and a great annoyance to non-users, especially women and children, and the universal habit prevailing today in almost all public eating places of smoking during eating hour should, to my mind, be ruled out. Such imposition by the user upon the rights of the non-user will in the near future arouse the women voters to war on tobacco to its death.

NASAL DEFORMITIES AND THEIR CORRECTION.

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Nasal deformities include many malformations of the nose and have not in the past received the consideration they deserve. A good proportion of diseases of the upper respiratory

passages could be prevented by having a well-formed and functioning nose. Sinusitis, pharyngitis, and laryngitis are rarely present in persons possessing normal nasal cavities. An insufficient amount of air is taken into the lungs by a person with a stenosed or obstructed nose; evidence of this is gain in weight after a satisfactory correction. Innocent individuals with an ill-shaped nose may have the stigma of lues when the cause is a condition foreign to that of syphilis.

Non-development of the facial bones accounts for a large percentage of nasal deformities. This is wholly preventable and is within the responsibility of the physician. It is due to faulty cell metabolism either prenatal or during childhood. The one is most probably the result of improper diet or disease of the mother as lues or tubercu-

losis; the other of malnutrition and mouth-breathing. The removal of obstructing adenoids and tonsils from an individual with an appreciable non-development of the facial bones and nasal cavities will not re-establish normal respiration, especially if the deformity is of long standing, unless the nasal spaces can be enlarged. This can best be done by an orthodontist by widening the upper dental arch and bringing the floor of the nose downward, thus increasing the nasal space laterally and from below upward.

Injuries at birth, also from falls and blows on the nose accounts for a few of these deformities. Destruction of the supporting nasal cartilages following abscess of septum is another contributing factor.

A well-balanced diet for the expectant mother and afterwards for the child with early correction of nasal obstruction will eliminate the majority of these deformities. Plastic surgery is of great aid, especially from a cosmetic standpoint. The receding or infantile nose, the saddle nose, the drop-tip nose, etc., are very satisfactorily remedied by inserting additional support to the framework of the nose. To do this the many operations differ mainly in placing the initial incision.

Chondral cartilage has been found to be the most adaptable for the frame support. It is easily cut with a knife, rarely absorbable, and has quite a resistance to infection. While some have advocated bone, it is difficult to shape and unless each extremity is in contact with bone it will soon be absorbed. Foreign substances as celluloid have been very satisfactorily used by Dr. Lewis, of Minneapolis, while Dr. Stage Davis, of Baltimore; Dr. Sheehan, of New York, and Dr. Killner, of Great Britain, favor chondral cartilage.

The operation of choice is the one devised by Dr. J. D. Lewis. The initial incision is placed in the columella. It does away with the unsightly scar on the bridge of the nose. It is more accessible than the intranasal route and does not give the great risk to infection. A great variety of nasal deformities can be corrected through this incision. Bony bumps can be taken down with the rasp and chisel; excessive cartilage may also be removed with the angulated Makenty knife. If the septum is deflected and obstructing either naris the incision may be extended or deepened and that portion of the septum removed.

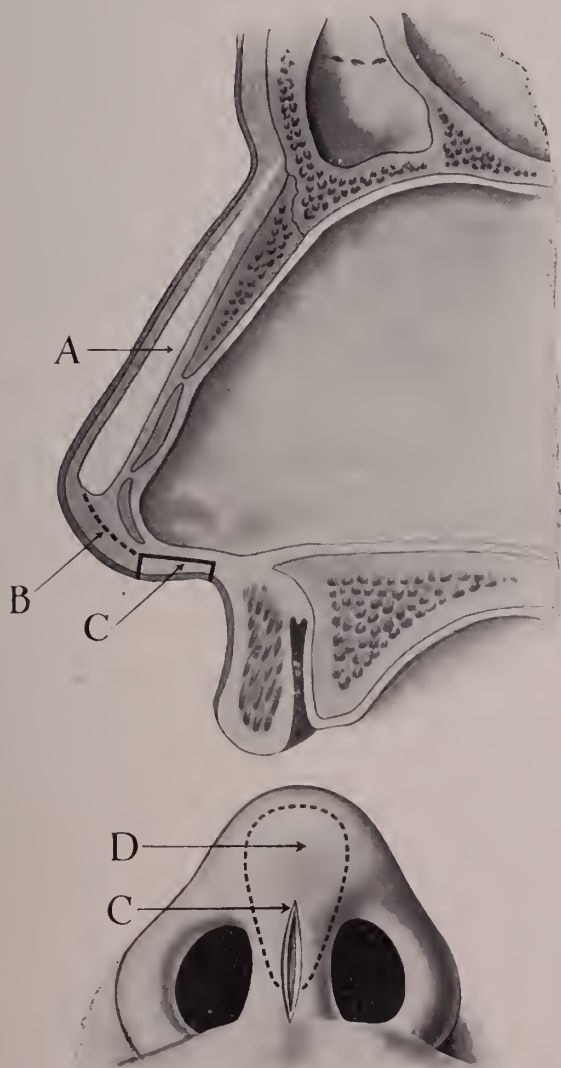


FIG. 1. A—Graft. B—Tip hood; line shows distance between graft and initial incision. C—Initial incision. D—Undermined tissue.



FIG. 2. Preoperative: Note luetic stigma from undeveloped upper jaw. The nose sinks into the face.



FIG. 3. Postoperative: Nasal bridge and tip raised by inserted cartilage. Notice the changed expression.

CASE HISTORY.

Miss J. was admitted to the Duval County Hospital on the ear, nose and throat service July 9, 1922. Came to hospital to have rhino-plastic operation.

Family History: Negative as to any constitutional diseases.

Personal History: Age 18; single; is the oldest of eight children. Had measles and whooping cough when four or five years old. Tonsils and adenoids removed for mouth-breathing at eight years of age. Submucous resection of nasal septum was done two months ago.

She is small in stature. The face is much shorter than normal from forehead to chin and from the maxillary eminence to the external auditory canal. This latter condition is commonly known as retrusion of the superior maxillary ridge. The superior maxilla does not give proper support for the nose. It allows the nose to sink into the face. She has thirteen teeth to each jaw, and these are fairly well crowded. One molar was recently extracted because it was totally

out of line. The teeth missing are five molars and one bicuspid. The X-ray shows three molars unerupted. The nose is shorter, both in length and height, than one would expect in an adult; the nasal cavities are likewise small, such a condition is termed infantile. The bridge and base have a rather broad appearance. The hard palate presents a high arch which most probably was caused from mouth-breathing.

On July 10, 1922, under general anesthesia a rib cartilage graft was transplanted into the dorsal surface of the nose. The operation was as follows:

The cartilage graft was removed with its perichondrium from the seventh rib on the right side by making an incision obliquely downward and dissecting the soft parts away from the cartilage and severing each end with the bone-cutting forceps and scalpel. This part of the operation was done by Dr. F. A. Copp.

The face and nose were washed with soap and water followed by alcohol. With a Frees nasal septum knife a vertical incision was made

through the skin of the columna nasi, beginning at its midline one centimeter below the tip of the nose and extending the incision well down to the philtrum. The skin was undermined on either side and above. With a curved iris scissors introduced in the wound with the blades pointing upward and backward the soft tissues were divided and then the pocket was extended on the dorsal surface of the nose. The dissection was carried out with a Ballenger perichondral elevator over the nasal cartilages and nasal bones to the infralabella. The success of the operation depends greatly on a well-formed hood at the tip of the nose and avoiding button-holing either the skin or mucous membrane, thus inviting infection and necrosis. It is useless to say that the blind-pocket must be in the midline as the implant might be displaced to one side. The cartilage was trimmed wedge-shape and the corners of the big end rounded off. This was then inserted but removed for further shaping until the proper size was obtained. Special care was made to preserve the perichondrium on the side and to place it uppermost. The wound was closed with three interrupted silk sutures and collodium applied. The stitches were removed on the fourth day. There was no complaint of pain in region of nose or complications following the operation.

As to this method of correcting nasal deformities we may summarize the following:

First: The simplicity of the operation.

Second: The transplant is provided proper support by a tip-hood which prevents extrusion.

Third: The sutures are below and some distance from the graft which safeguards against infection.

Fourth: The initial incision heals with a linear scar so placed that it is not noticeable.

FIRST IMPRESSIONS OF A FLIGHT SURGEON.*

LIEUTENANT J. D. BENJAMIN,

Medical Corps, United States Navy.

The U. S. S. Langley was commissioned as an airplane ship on March 20, 1922, and has conducted active flying operations on shore and on board since that time. For the past four months a flight surgeon has been attached to the ship. This paper is written to give the first im-

pressions of a flight surgeon on his first tour of duty and to show the safety factors and other life-saving measures that have been put in action on this ship, and the possibilities of prevention of accidents in aviation. To the aviation personnel themselves are due most of the credit for the overcoming of hazards.

This ship presents varied problems in aviation, due to its peculiar activities, and these include many problems of so-called aviation medicine.

The Langley is not only distinctive in design but is unique in the nature of its work. It is not only an airplane carrier, but is an airplane flying field as well as an airplane workshop. In short, it is a small air station in itself and is able to conduct an independent existence as far as flying is concerned, which it often does. Due to these facts, the problems of aviation medicine aboard are those of an air station as well as a navy yard and ship at sea.

A brief description of the ship itself seems necessary before taking up its medical problems. The U. S. S. Langley was built in 1912 as the collier Jupiter, a sister ship to the ill-fated Cyclops, which completely disappeared during the war. It was named after the inventor of the first successful airship, which is now in the Smithsonian Institute. In the conversion to the present airplane-carrier, a long deck was built above all its superstructure. This deck is about 530 feet long and gives plenty of room for a number of planes to land on as well as to take off. This deck is so rigged that planes landing on board are held and prevented from leaving the deck of the ship. At one end of this landing deck of the ship is a part that slopes downwards at an angle to the deck and continues in a deck that slopes still further downwards. This forms what is known as an apron. Below this is a huge wire screen. The sloping decks prevent a crash of a plane that is making too low a landing and the screen prevents planes from crashing into the ship. These devices were put up by the aviation department of the ship and are essentially safety devices. This deck is also supplied with an elevator by means of which planes can be lowered to the well deck below for repair or storage purposes from the flying deck above. This combined with the enormous holds, formerly used as coal bunkers, give the ship a carrying capacity for planes greatly beyond its immediate needs. Forward, under the bridge, the ship has a complete repair shop and storeroom. This repair shop compares

*Read before the Escambia County Medical Society, at Pensacola, June 12, 1923.

favorably with the carpenter and repair department of a station. It consists of carpenter, machinist, sailmaker, paint and electrical shops as well as a complete aviation storeroom. In the hold of the ship spare parts are carried, and a plane damaged on the flying-off deck can be immediately lowered to the well deck and the disabled part removed and a new part added. In fair weather the well deck is used as a general assembling field for setting up broken-down planes.

Flying connected with the ship is mainly with land planes, aero-marines, Voughts and De Havillands being used. In flying operations, the ship heads into the wind and the land planes take off and land on the flying-off deck. During this many precautions and safety measures are put in effect. When flying on and off at sea, underway, all pilots wear life jackets.

In preparation for flying, the huge upper deck becomes as bare as a billiard table. Everything is removed from the deck; the smokestacks are turned down; the masts are lowered and the net railing turns down, making a huge net all around the ship about five feet below the deck of the ship in which observers and the crew stand during flying. This net is a safety factor in that it gets everyone out of the way of the landing plane so that no one is in danger of being struck. In this net stand the hospital corpsman and medical officer with stretcher and first-aid kit. Signal flags are used to indicate whether the ship is ready for the pilot to land aboard, this removing the danger of the pilot landing on when the ship and crew are not in readiness to receive the plane. It is extremely hard for the pilot to see the deck of the ship when about fifty yards astern because they fly from the rear cockpit; it being more convenient, but at close range they have obstructions in the field of vision they would not have from the forward seat. Because of his flying in this position, two officers stand at the stern of the ship and indicate by their arms the relative height of the plane and position in respect to the ship. This factor has undoubtedly prevented a great many crashes. Propellers have been broken in landing aboard, due to the plane nosing over on contact with the ship and flying splinters from the propeller have endangered the crew. This has been overcome by the placing of a hydrovance under the propeller. Pigeons are available, but due to the lack of long flights they have not been used much.

The planes are equipped with special equipment to permit them to land on board. A headrest which is stream-lined toward the stern of the plane overcomes the constant resistance of the air against the pilot's head during flying. Two sets of belts around the pilot's body are preferable to one set, one being around the waist and one around the chest, because of the possibility of the pilot being jerked out of the plane, which is decelerated from as much as sixty miles an hour to zero miles in the short space of forty to sixty feet. Flying off is a relatively simple procedure compared with flying on, and merely corresponds to taking off from a flying field.

The ship has a catapult arrangement for launching sea planes from this upper deck, but little work has been done along this line.

The aviator is only interested in accident work to the extent that he wants to be assured that everything will be done for his safety in case of a crash. He flies with much more assurance and more readily takes the air if he knows that in the event of a forced landing or crash someone will immediately be standing by to pull him out and give him proper treatment.

Four factors have been considered on this ship in making flying as safe as possible. First, the possibility of the aviator crashing on the deck when he is making his landing on the ship while it is under way. This might happen due to misjudgment by the pilot, as by a poor approach, not properly estimating the distance to the deck, or some other faulty procedure. This trouble would undoubtedly be due to some physical defect of the pilot, either temporary or permanent. A physical examination of the pilot, together with an intimate knowledge of his habits and immediate physical and mental condition, would determine this cause.

Next, a crash on the deck might be due to some fault in the plane. Here the responsibility would be entirely up to the aviation department.

Each plane has a mechanic in charge of it who draws flight pay and must fly at times in his plane. If the plane is not in good condition he loses his flight orders and also endangers his own neck. This is no mean safety factor as it doubly assures the pilot the plane is all right. It is not infallible, for as one mechanic expressed it: "No one can swear that a plane is O. K." Bad landings might be due to down currents of air. This has occurred repeatedly and the pilots have brought themselves out of the difficulty by good

flying and maneuvering. One pilot struck the stern end of the ship a glancing blow and bounced into the air, but by giving the plane the gun and pulling it up hard, he managed to extricate himself, and after flying again around the ship, made a splendid landing. A fourth is the possibility of some part of the arresting gear on the deck or on the plane giving way after the arrested landing has been made. This has happened on several occasions and, being an unforeseen emergency, has called for prompt measures being put forth in each case by enlisted men who seized the plane from the rear and prevented it from going over the side. Of course, its flying speed was nearly exhausted, but it would have crashed if it had not been seized in time. Absent-mindedness on the part of the pilot has been noticed, such as trying to land, (and as it happened, succeeded in doing so), on the deck without adjusting his arresting gear. This turned out all right, however, as the plane lost its speed and was retarded by the arresting gear sufficiently to enable the enlisted men to seize it and prevent it from going over the side. These possible crashes must be guarded against by careful construction and inspection of plane by aviation personnel, assurance that the pilot is in excellent shape, by first-aid equipment on deck in case of a crash, and by an efficient aviation deck force.

The possibility of a crash in the water by a land plane must be considered. It is estimated that a land plane will float in the water thirty minutes before sinking. This undoubtedly depends on how much it is damaged. A damaged plane would not stay up nearly as long or possibly not at all. A land plane once crashed into Guantanamo Bay, Cuba, and floated ten minutes before sinking. Measures to save the pilot must be as rapid as possible to extricate the pilot from a sinking plane. A seaplane capable of landing in most any but the roughest water, circles the ship while these flying operations are under way, carrying a flight surgeon and first-aid equipment. If a plane should stall or go in the water this seaplane would swoop to the spot and endeavor to pull the aviator out of the plane and so get him away from the sinking wreck. A navy tug steaming astern would head for the wreck and attempt the salvage of the plane, and if the aviator had not been extricated, would demolish the plane to make possible the rescuing of the pilot.

A lifeboat stands in readiness with a medical officer and first-aid equipment to proceed to the

wreck and render such other assistance as may be necessary. This practically includes all the hazards incident to flying on and off with the exception of fire. At short intervals along the trough at the side of the flying deck are fire extinguishers. A plane crashing on the deck in flames would have dozens of fire extinguishers playing on it in a very short interval. A plane crashing to the water and beginning to burn would mainly be a problem of rescuing the aviator from drowning.

Next comes the care of the aviator himself. Are aviators hard to take care of and are they a peculiar class of men? One is often asked this question. The outside public seem to believe that aviators are like bicycle riders, circus performers, prima donnas, or other classes of people who are doing spectacular work before the public. But are they? The writer is not familiar enough with the other classes mentioned to say how they compare with them, but he does know that aviators are just normal, healthy Americans, likable, full of vigor and enjoying life every minute. They josh and joke one another, enjoy cards, especially bridge, like to dance and are usually very acceptable in any social gathering. Most of them are witty in conversation, pleasant to talk to and excellent dancers. They seldom speak of flying in a fearing manner and if one of their comrades crash they feel the loss the same as you or I when one of our friends die suddenly. But does it effect their flying? you ask. Possibly, but you would never know it, for most air commanders have a plan to put all the aviators in the air immediately following the death of one of their comrades and so immediately check any personal fears the death of a comrade may have on a flying squadron or air station. Their mode of living is not much different from others except that perhaps they get a little more pleasure out of life. They live in the moment, never missing a chance to take part in a dance or smoker.

The annual physical examination of the pilots revealed a number of minor defects which were quickly corrected so that at the present time all of the pilots are in good condition. Lack of exercise and means for it, are hard factors to overcome. Life on board is rather sedentary at best, and unless absolute provision and requirement are made for exercise the pilot falls down in this regard. A good adjunct to a ship of this type would be a small, well-equipped gymnasium with regular compulsory exercise. Rarely is it neces-

sary to remove a pilot from flying. Temporary removal from flying is a good plan and the pilot's idea of whether he is fit to fly himself is a big factor, for he usually feels when he is not fit, but sometimes for fear of being called afraid to fly, he will not say anything about this fact. Moods have been important factors. One flier received some unfortunate news that made him feel as if he didn't care what became of him. This came out in his flying performance, which was reckless and dare-devil in type. A talking to him straightened this out and gave him a new lease on life so that his flying became more careful.

The circulatory efficiency test, (Schneider index), has proven a tangible way to show fliers that their condition is not what it should be at times. One flier who had little faith in the test wanted it performed on several occasions to try it out, as he afterwards confessed, and so admitted the value of the test; when he had a slow index he had been out late the night before and was not up to the mark physically. This flier now takes excellent care of himself and cooperates fully with the flight surgeon.

The hardest proposition on a ship of this kind is to find space to put up an examining room. Although this is a huge ship, every bit of space has been planned and asked for. Luckily, no equipment has arrived so that the location of this space has not become imperative and examinations have been made on shore at the air stations where the ship has been anchored. This has been rather difficult, as the ship has been cruising and doing a great deal of experimental work so that the examinations have been sandwiched in as much as possible.

This ship has at present nine pilots on board and two on shore at Hampton Roads, Va. All of these pilots are seasoned fliers with hundreds of hours in the air and all with one exception have had extensive experience in land planes. Thus it is not a new game to them and they tackle the propositions of aviation like a seasoned ball-player does baseball, in contradistinction to a recruit. This has been a big help to the flight surgeon, for he has not had to deal with the problems that one dealing with men new to the game would encounter.

These veteran fliers know the hazards of the game, the necessity of care of self as well as the plane, and what he has to do in order to play the game safe. This type of flier cooperates in every way.

The English custom of having tea and toast every afternoon at four p. m. prevails on this ship and is an excellent custom and opportunity to study the aviator. A number of pilots together after a hard day's flying, sipping tea and smoking, will hash over the events of the day and tell, without prompting, mistakes made during the day, and each will criticize the other in a friendly way, and this joshing and criticizing gives a keen insight into the man's character and ability and shows the way to carry the pilot through dangerous periods. Shore liberty with a pilot has proven a good test of his nature and character. Eating at the mess is another place for study. Eating the same food as the pilot, you can judge more precisely as to its value, whether nutritious and appetizing. A good mess—well-cooked food—well served and an agreeable crowd are conducive to good morale and hence good flying.

In addition to the flying operations, the ship has done considerable cruising and this in spite of the fact that it is actually an experimental ship. Flying operations have been intensive. In Panama during the recent fleet maneuvers the Langley made a wonderful record and gave exhibitions of flying off and on while steaming in the midst of the fleet. No mishaps were encountered and the pilots made a remarkable showing before the Secretary of the Navy, numerous congressmen and high naval officials.

In closing, it is recommended that a new ship of this type have an extensive laboratory for examination of aviation personnel, with complete equipment for all kinds of test. A well-equipped gymnasium with handball courts, a physical director, preferably a chief petty officer or warrant officer in charge of the gymnasium directly under the medical officer. The most important part of the equipment of a flight surgeon is a collapsible tube containing a hypodermic with needle ready for instantaneous use. He should have tubes of morphine, strychnine and caffeine. An injured aviator can be quiescent and fairly comfortable by the immediate injection of a hypodermic of morphine while he is being extricated from the demolished plane. A case like this appeared on one air station where the aviator was buried six feet in soft mud and had a dislocated hip and fractured tibia. The gas tank and parts of the plane were pressing on his body; giving him a hypodermic kept him fairly free from pain and at ease until he could be extricated from the wreck.

SOME PROBLEMS IN LATERAL SINUS INVOLVEMENT WITH ANALYSIS OF SEVEN CASES, TWO OF WHICH ARE REPORTED IN FULL.*

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The lateral or transverse sinus begins at the torcular herophili and extends to the jugular bulb, roughly, between three and four inches. It is encased in a tough, fibrous sheath of dura and lies in a groove in the parietal, temporal, mastoid and occipital bones. It may be divided into two major portions, the longitudinal, representing about two thirds of the sinus, and the vertical, one-third; its width is about twelve millimeters. From its resemblance to a Greek letter, the trap-like turn to the last portion of the sinus has been called the sigmoid sinus. In the sweep of the sinus forward it receives the superior petrosal sinus, the mastoid emissary vein, and the inferior petrosal sinus, which enters at the jugular bulb. One of the lateral sinuses, usually the right, is a continuation of the sagittal sinus. The average distance of the sinus knee from the spine of Henle is twelve millimeters.

The inner visceral or cranial table of the skull is very firm but thinnest over the knee, which, being nearest the antrum, is most commonly the point where erosion begins.

The dura in the region of the mastoid is very tough and resistant. Where it reaches the edges of the groove of the lateral sinus, to which it is firmly attached, it divides into an inner and outer portion, one going to each side, forming its wall, the outer side in addition being supported by the bony groove. Since the inner portion of the dura is tightly stretched between the margins of the groove an extradural collection of pus must make pressure upward toward the knee, downward toward the jugular bulb or inward on the vein. Five cases of this kind were reported by Passau in 1910, in which the vein was completely obliterated. The first case I wish to report tonight, the patient having a compact diploetic bone, a long-continued destructive process, a periphrlebitis, a perisinus abscess and collapsed vein was probably of this type.

Two factors of prime importance seem to determine the amount and rapidity of bone destruction which we see in these cases. Firstly, the viru-

lence of the infection and, secondly, the character of the bone structure in the individual case. The first case had scarcely as much necrosis after lasting three months as the second one had in ten days. In the four other cases referred to a little later, and in which the strepto-hemolyticus was the infecting agent, there was rapid destruction of bone and extension into the sinus, typical sinus thrombosis symptoms and classical treatment, followed by death.

In the first patient the findings were consonant with the long duration of the case, while in the second, a few islands of granulations on a vein normal in color and contour, resilience, and pulsation were fitting findings in the more acute condition. The vein wall in the first case was 1.5 mm. thick and the vein found empty on incision, a little blood welling up from below only, and none coming from above until the curet was used in the direction of the torcular.

The first case had presented some symptoms of sinus involvement prior to the day of operation. He had post-auricular and post-mastoid swelling with special tenderness over the emissary vein, with pain and tenderness in the upper cervical region, but he did not have the peculiar fever curve indicative of bacterial infection of the bloodstream from a thrombus. A twenty-four hour blood-culture was negative, but in the case of a complete thrombus block, before disintegration has begun, this would be expected.

Dr. F. M. McCarthy, of Cincinnati, writing in the *Eye, Ear, Nose and Throat Monthly* for December, says: "Boldness and decision will do less harm if the operator is skilled, than to allow precious time to be wasted through indecision. One must remember that if an infected thrombus is present only miraculous luck will save the patient if the thrombus is not removed or blocked off by ligation of the jugular vein of the same side." He gives an analysis of twelve cases and in his summary says that early diagnosis is essential, that more extensive surgery is the only hope in the late cases and that all his late cases died of meningitis rather than the effects of the bacteremia.

When in the course of a mastoiditis we get a chill with vaulting temperature reaching 104° to 106°, which after a time declines rapidly with copious perspiration, or if the temperature assumes a see-sawing character which is not due to treatment, then surgical interference is imperative and demands thoroughness, including

*Read at a meeting of the Staff of St. Luke's Hospital, Jacksonville, January 4, 1924.

visual inspection of the sinus. To hesitate is to lose your patient. Dench reports 75 per cent recoveries in sinus thrombosis cases and only 71 per cent in cases where the jugular vein is involved.

In the absence of chill and fever or a positive blood culture one might conclude that we are not justified in doing a jugular ligation in the first case reported tonight. An extensive involvement of the sinus, the vein being without the semblance of normal color, collapsed, very resistant to palpation, with a secondary resistance on making deeper pressure, as of something hard and about which we were in doubt, prompted us to decide to look within the vein.

A series of five fatal cases of mastoiditis with sinus involvement, with which I had been connected formerly in various capacities, but which are not reported here in full, had convinced me that the results of delayed and too conservative surgery may be quite disastrous. I will refer first to the case of a patient who refused operation. He had mastoiditis, lateral sinus thrombosis, jugular phlebitis, pulmonary abscess, cavernous sinus thrombosis, all on the same side, and died after six weeks of suffering. Four other cases were operated upon, each receiving a complete mastoidectomy. In each the cranial table was eroded over a moderate area, granulations were found on the sinus wall, but if a thrombus was present at this time, it could not be determined, and the sinus was not further interfered with. In a few days chills and sky-rocket temperatures, followed by a rapid fall with drenching perspiration announced blood-stream infection. We waited for the results of blood cultures in each case, which showed a strepto-hemolyticus invasion, and then operated for sinus thrombosis using the classical method for such cases, but our efforts were unavailing.

In the second case reported tonight a careful examination of the uncovered sinus seemed to indicate that the several granulation areas on the vein wall were superficial and that there was not any phlebitis or thrombosis present at the time of operation. An X-ray study was not made in this case because the patient was unable to pay the bill and also because the diagnosis of mastoiditis could be made positively without it. The temperature was about normal, the pulse rate was good and the general condition of the patient was excellent. Cortical perforation had already taken

place and a sub-periosteal abscess diagnosed prior to operation.

The first man had a double mastoid, but the operation on his right side is not being reported in detail or counted in this paper because, while we did a complete mastoidectomy and found a 5 mm. erosion of the cranial inner table, there were no granulations on the vein and only a slight congestion of the vein wall in the vicinity of the eroded area which could not be classed as a sinus involvement.

It is the purpose of this short paper, illustrated by the appended case reports, to call attention to some of the difficulties to be met with in mastoid surgery, especially in late cases and virulent infections, and to urge in the interest of the patient that the most thorough study possible, time permitting, be made in all cases before operation. We must not forget when we uncover and inspect the sinus that our sins of omission may be more fatal to the patient than our sins of commission.

CASE 1.—W. M. G. A man, 34 years old, a hard-working farmer, whose family history contained nothing of importance. He had Neisserian infection in 1914, typhoid fever in 1916, denies leptic infection, and had dengue fever in October, 1922.

A few days after the dengue invasion he began to have involvement of both ears which required incision of both drum membranes on October 10, 1922. Since then he has had more or less constant discharge from ears and also pain and fever some of the time. Free discharge would relieve the pain. At the time I first saw him, February 11, 1923, he was feeling some better and refused the operation which had been arranged for this date by his family physician, Dr. E. L. Biggs, of Starke, Fla.

On February 25, 1923, he consulted me and gave a history of pain in the left ear, mastoid region, left side of head and back of neck, worse at night, for past two weeks. A small polyp was present, also a slight discharge, in each ear. The pulse was 108 and the temperature 99; the tongue was coated and the breath foul; the neck was carried stiffly with head to right and top slightly over. The appetite was poor and the bowels regular. On February the 28th the condition was much the same excepting that tenderness was noticed over the left emissary vein with some swelling over the mastoid and posterior

to it. The left auricle was more prominent than the right.

X-ray study completed on March 1, 1923, by Dr. Cunningham was reported as follows:

"The roentgen examination of the mastoid region of W. M. G. shows them to be essentially of the diploetic type. A few cells of irregular type are noted about the knee of the sinus. There is no evidence of sclerosis in either mastoid. I am unable to find any destructive pathology. Further study might be helpful and with negative X-ray findings, the clinical side should be depended upon."

The patient now decided to again postpone operation. Both drum membranes were then widely incised and irrigation of warm boric acid solution advised.

He returned on May 24, 1923, reporting that he had worked some on the farm, but on the whole he had been more or less sick and miserable the past three months. The pulse was now 96 and temperature 100.8. He had pain in both mastoids with headache worse at night. Both ears were discharging slightly; the polypi had disappeared; there was pain and tenderness around the mastoid region.

Dr. Cunningham made a further study with the X-ray and reported his findings as follows:

"The study of the films made May 24, 1923, would suggest probably a little more fine detail and evidence to suggest the involvement of both mastoids. The left mastoid gives the following information: One or two cells only are seen at the knee of the sinus. One of these is very large and its size may be the result of a previous infection. The sigmoid sinus seems to run directly underneath the mastoid and suggests very strongly the probability of a sinus thrombosis. The emissary vein runs into the sigmoid sinus at about the vertical limb of the sinus. Study of the right mastoid suggests a probable abscess cavity involving most of the mastoid up to the knee with unusual translucency of the sigmoid sinus which makes a U-loop slightly behind but mostly posterior to the mastoid. Cell structure is seen at the knee and over the meatus and appears hazy in outline. The study would tend to suggest, while neither mastoid shows any cell structure except in the region of the knee, the possibility of a mastoid abscess on each side and a probable sinus thrombosis. These mastoids are either of the diploetic type or the long-standing infection has changed the cell structure in the vertical portion."

The man now consented to operation and after some delay incident to distance and weather he returned on May 29th on which day a blood culture was started. A 24-hour culture showed no growth and the operation was begun on May 30th at St. Luke's Hospital, under chloroform induction and ether anaesthesia, upon the left mastoid because we believed it to be the most pathologic.

The usual incision in the skin was made. With a half-inch gouge the cortex was removed. After a few strokes of the mallet pus was seen coming up from a large necrotic area over the antral region, which was filled with pus, broken-down bone and granulation tissue. The bone was quite firm, but diploetic in type, with few cells. There were no cells and no infection in the mastoid tip. A large broken-down area with a few cells was found in the zygomatic region. A sinus connected this area with the antrum. This focus was cleaned up with curet and rongeur and the sinus next uncovered and found for the most part over-spread with granulations. The sinus was thick and leathery to the feel of the finger and on pressure was resistant and hard. The sinus was collapsed and liver-colored. On account of the uncertainty of the contents of the sinus it was deemed best for the patient to open it up for further inspection.

An incision was now made from the mastoid tip to the left sternal notch, the medial margin of the sterno-cleido-mastoid muscle was dissected up, the sheath of the great vessels of the neck opened, the vein dissected from the surrounding structures and ligated about two centimeters above the clavicle and the same distance above the entrance of the facial vein; also all of the branches of the vein between the main ligatures were tied off. A small 5 per cent iodoform gauze drain was inserted in the lower third of the wound, interrupted silkworm gut sutures were used in coapting the wound edges, after two catgut sutures had been placed to efface some deep space in the upper third of the wound.

The sinus was incised and found empty, although some blood oozed up from below, slowly. Blood came from above only after use of the curet toward the torcular. The sinus was tamponed with iodoform gauze, the wound was filled with the same material and closed with silkworm-gut sutures. Plain fluffy gauze cotton and a roller bandage completed the dressing and the patient left the table in good condition.

On June 4, 1923, a complete mastoidectomy

was done on the right side, an area of 5 mm. in diameter found eroded over the sinus, but the vein showed no sign of involvement and was not further molested. Recovery was uneventful and complete.

CASE 2.—A farmer, 46 years old, referred by Dr. E. L. Biggs, consulted me on November 17, 1923. He gave a history of pain in the left ear about six weeks before, lasting four or five days and followed by a discharge which was free for several weeks. Lately the discharge has decreased and he has pain in and around the ear, mostly posterior to the auricle. His head had been swollen on that side for a week, but had seemed less so for the past few days. There was soreness over the left side of the head, but no headache.

Examination showed some purulent secretion in the canal. Cleaning the discharge away disclosed a red, sagging postero-superior wall with some granulations in the postero-inferior quadrant of the tympanic membrane. Left auricle showed marked protrusion. There was an edematous swelling over the whole mastoid region and for more than two inches upward and backward. There was tenderness over the antrum, the tip and the region of the emissary vein. Pulse was 76 and temperature was 100. Family history was unimportant. He had always been healthy and never seriously ill. Physical examination revealed no pathology in heart, lungs or abdomen.

He came to operation on November 9, 1923, and under ether anesthesia a complete mastoidectomy was done on the left side in the usual manner, revealing a perisinus and epidural abscess of the middle fossa as well as the sub-periosteal abscess that was evident, the first cut of the knife having been followed by a free flow of pus. Hemorrhage was quite free from the greatly swollen tissues. It was approximately 2 cm. from skin to bone, making such a deep wound that it was necessary to make the supplementary incision of Whiting to secure room to operate on the bone. A small perforation in the cortex over the antrum was found. The cortex was cut away with the wide gouge revealing an extensive necrosis of the mastoid cells principally over and anterior to the sigmoid sinus. Granulations were extensive, being attached to the sinus in three separate areas and over the dura in the middle fossa for a small space, at its junction with the sinus. It was necessary to uncover the sinus for

3 cm. vertically, and the width of the sinus, to reach healthy bone. A dural area, 10x15 mm., was uncovered in the middle fossa. Inspection and study of the uncovered sinus revealed no evidence of any interior involvement and it was not further disturbed. A complete exenteration of all infected portions of the mastoid was accomplished. The operation presented difficulties in the excessive depth of the wound from the surface level, the consequent trouble to keep landmarks in view and in proper relation to procedures. Hemorrhage was troublesome at all times. The sinus and dural involvements required careful handling.

The usual dressings, sutures and bandages were applied and the patient sent to the ward in good condition, had no complications, and made a good recovery.

PRE-NATAL CARE.*

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It is not the purpose of this paper to exploit any new method of treatment, to sponsor some recent and elaborate technique, or to burden your memory with a useless mass of laborious statistics. I have nothing to offer that hasn't been previously brought to your attention at some time in your earlier training and practice. Realizing that the average general practitioner—and it is to this class I am directing my remarks—is too busy to spend the time necessary to master the details and every new step forward of any one specialty, I am taking the liberty to present this subject tonight in the hope that it will freshen our memories and spur us on to more thoroughly practice that knowledge we already possess. I think we can all agree that some form of pre-natal care of our pregnant women is essential as well as highly beneficial. The basis for my remarks tonight will be from my own experience and conclusions drawn from my service at the Howard, the Presbyterian, and the University Hospitals, and the Southeastern Dispensary in Philadelphia, and Sloane Maternity in New York, and from visits to pre-natal clinics of other large maternity hospitals.

Now, the prevailing idea among the laity, and shameful to admit, among a goodly number of

*Read before the Duval County Medical Society, March 4, 1924.

the profession, is that pregnancy is a normal physiological affair that will reach a happy termination, requiring no attention on our part. We have no right to this assumption when the equilibrium between health and disease in pregnancy is so easily upset. We do not advocate any wilful and meddlesome interference with nature's method, but we do insist upon a careful supervision of the entire period of gestation, being prepared to interfere at the first danger signal. Furthermore, we must take into consideration a factor that is not generally recognized, viz. as a result of the changed habits of living in all its modern phases, of the indiscriminate attempts at birth control, and numerous other contributory factors, the woman of today is becoming anatomically, physiologically, and physically less equipped and qualified to fulfill her role of reproduction. One eminent specialist in Philadelphia with whom I was associated, told me that over 50 per cent of his private patients had abnormal labors in some form—bad presentations, smaller pelves, inertia, etc. The higher the civilization and strata of society the more this holds true, which calls for greater knowledge and skill on the part of the accoucheur and a more intelligent and conscientious cooperation on the part of the woman.

Let us discuss briefly *what* we can accomplish with routine pre-natal care and then *how* to actually put these desired results into practice. The main objects are (1) to reduce both maternal and fetal mortality and morbidity, (2) to decrease the number of abortions and miscarriages, (3) to reduce the number of complications of pregnancy and labor and to be prepared for those that arise of necessity, all of which can be summed up in one word—prophylaxes.

So we encourage our patients to place themselves under some doctor's care the minute they suspect their condition. At the first visit, or as soon thereafter as practical, we should take a complete and thorough history—the importance of which cannot be stressed too much—including past medical and surgical, menstrual in detail, former pregnancies, present pregnancy, and family history. Then the patient is prepared for physical examination. And right here we might say that there is a very great tendency for us to forget that a woman is composed of something else besides an uterus and vagina. We so focus our examination upon these that we lose the proper perspective of the remaining parts of that most complex organism—a pregnant woman.

The following is our routine: teeth, ears, nose, throat, sinuses; careful examination heart and lungs; note size, shape, consistency, pigmentation, secretion, etc., of breasts, condition of nipples. In abdomen presence or absence of striae, relative firmness or laxity of abdominal walls, and diastasis recti; and masses, enlarged liver or spleen and position of kidneys. Insofar as in keeping with the stage of pregnancy, record height of fundus uteri, circumference, outline position of fetus and locate component parts. If possible, note position and rate fetal heart sounds, and any additional information we might learn from abdominal examination. Now we turn our attention to the pelvis, noting any gross abnormalities or deformities. With one of the various types of pelvimeters we make and record the following external measurements: anterior superior spines—crests of ilia, trochanters, external obliques, external conjugate or Bandelocques diameter, transverse of the outlet and sagittal diameters of outlet (important in transversely contracted pelves), circumference of pelvis. Internal conjugate by one of usual methods familiar to us all. From the above data, together with symphyseal height inclination and sulpic angle, we type our pelvis and obtain reliable opinion of ability or inability of the passage of a normal baby. At same time we make a thorough vaginal examination for any anomaly or pathology of vagina or cervix, also noting position and size of uterus and any information relative to contained fetus; a routine B. P., urinalysis and preferably Wassermann and blood count is a matter of course. And last, but by no means least, we study our patient as an entity and a personality and endeavor to obtain a proper conception of her mental attitude and psychology which will stand us in good stead in our future dealings with patient.

Having assured ourselves that she is actually pregnant, we must establish a definite procedure for supervision of this pregnancy. If everything is as it should be at this examination, it is our business to keep it so or to recognize any complication at its beginning. Our practice is to have patient bring specimen of urine every two weeks, at which time B. P. is recorded and general symptoms gone over as necessary. In some clinics an abdominal examination, height of fundus, position in utero, heart sounds, etc., is also done at these visits. There should never be an interval longer than a month between such abdominal examinations. Four weeks before term we make

another thorough vaginal to check up on presentation, position, engagement or disproportion between child's head and pelvis, etc., this being especially important in primiparas. It is in this month that we can be of the greatest help to our patients, and consequently should increase our vigilance by insisting upon weekly B. P. and urine.

Now let us consider the practical application of this general routine outlined above. We attempt to dispel any doubt or impending fear of the ordeal of labor from the patient's mind by a common-sense talk, giving an idea of what to expect at different times. This will save much sudden alarm at small, groundless symptoms, thus helping us to gain her confidence as well as saving ourselves much inconvenience. Advise her as to diet, dress, exercise and general hygiene, particularly stressing care of teeth, nipples and regulation bowels. Caution her to immediately notify us of any unusual symptoms such as vertigo, headache, dimness of vision, scanty urine, increased nausea, edema, bleeding, etc. If from the patient's history and our examination we find some constitutional disease, cardiac (of which mitral stenosis is the most serious), pulmonary or what not, we treat same as indicated and plan our campaign in advance; therapeutic termination of the pregnancy, premature induction of labor, forceps, version, as suits the case. Syphilis should receive appropriate treatment, and even if we are not able to carry this pregnancy to term, we may favorably influence the next.

If we find a contracted pelvis we must decide whether it constitutes an insuperable obstruction to vaginal delivery, or whether a border line case warranting a test of labor. Thus forewarned we can induce labor few weeks in advance, schedule a Cæsarean section under ideal conditions, carefully watch the test cases, thus giving both mother and fetus every possible chance. It is appalling the number of such emergency cases received in the large maternity hospitals in which the patient has been allowed to labor for two or more days, suffering many useless vaginal examinations and futile attempts at forceps delivery, and upon questioning we find that physician had never made a pelvis measurement. She is utterly exhausted, almost sure to be infected, the baby probably dead from asphyxiation or trauma: all in all a bad risk for any operative procedure. Malpositions of uterus are a cause of abortions and a possibility of incarcerated pregnant uterus—pelvis tumors and any other pathology of

parturient tract should receive appropriate treatment, thus preventing many of the embarrassing complications of labor.

One of the biggest fields for pre-natal care, and that would alone justify any amount of time and trouble it may cost us, is the toxemias of pregnancy. The earlier toxemias can in a large measure be controlled or alleviated by proper diligence and treatment. While eclampsia—the cause of a very large proportion of all maternal deaths—can be almost entirely prevented if the physician watches his case carefully and takes warning sufficiently early from the premonitory signs and symptoms to institute active treatment. At none of the different maternity hospitals with which I have been associated have I ever seen a case of eclampsia in any of the patients regularly attending our pre-natal clinic. And a study of the records shows a decrease in the number of such cases directly in proportion to the increase in the scope and thoroughness of pre-natal supervision.

A word might be said concerning those cases of bleeding occurring during pregnancy. We should caution all of our patients to notify us immediately of the least show of blood at any time throughout this period, and with no exception this sign warrants a thorough vaginal examination. The hemorrhage may not be pathologic, but it usually is. If we diagnose placenta prævia, we may carry to term successfully, it being advisable to have patient under constant observation, preferably in a hospital. The treatment varies with type of case and is not considered in this paper. It may be in our power to stop a threatened abortion or if it is inevitable, we are in a position to give the best assistance. Other conditions falling in this group should receive appropriate treatment, but the point herein stressed is the necessity of the vaginal examination for diagnosis.

Another group of cases in which much can be done and valuable information gained by pre-natal watchfulness, especially in the last month, is the malposition of the fetus in utero, and relative disproportion of the presenting part to the pelvic inlet. Faulty presentation of the head may be altered by external manipulation and posture. Many breech cases may be changed into vertex by external version, thus increasing the chances of the fetus by at least four to one. Dr. Ryder, of New York, gives a report of 69 cases thus successfully treated in the November, 1923, issue of *Surgical Gynecology and Obstetrics*. If during

the last month, speaking especially of primipara, the presenting part is not engaged, if there is a visible and palpable disproportion between this part and the inlet, we should be suspicious of unusually large baby, hydrocephalus, monster, malformation of uterus, bad positions, etc. Our future actions and, of course, of procedure, is to be guided by each case individually, premature induction of labor, mutilating operation, Cæsarean, version, or what not.

From the nature of this paper, it was impractical to discuss all the possible complications and pathology of pregnancy, but enough of them have been touched upon, I think, to show the great need and the wide range of usefulness of routine pre-natal care of pregnant women. And if I have failed, it is not because the subject is undeserving, but because of the poor handling of the subject matter on my part.

TREATMENT OF PYELITIS BY URETERAL CATHETERIZATION AND INSTILLATION OF THE KIDNEY PELVIS.*

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Until a comparatively few years ago, the treatment of pyelitis was mainly the palliative form. What is now known as the active treatment has only been in use since the introduction of the cystoscope with ureteral catheterization. This instrument has simplified the treatment very much indeed as well as being of inestimable value in the diagnosis. Prior to this time acute cases were often diagnosed as various acute inflammations and many a supposed acute appendix was removed needlessly. Today, however, with our knowledge of the disease and instruments at our hand to establish the diagnosis, beyond a doubt such mistakes are the result of carelessness or lack of sufficient study of the patient.

Symptomatology: The onset of pyelitis in the acute cases usually begins with a chill and fever following reaching as high as 105 degrees F. in some cases, especially children. There is a relatively high leucocyte count often as high as 25,000 and a very high percentage of polymorphonuclear leucocytes.

The most noticeable symptom is *pain* in the affected side either beginning in or radiating to the lumbar region of that particular side. This pain is very severe and colicky in character, often

causing nausea and vomiting with rigidity of the abdominal muscles. This is very confusing with other acute inflammations of the abdomen and for the first twenty-four hours making a diagnosis a matter of extreme difficulty.

There are three points of tenderness where pain may be elicited by bimanual pressure:

First—In the lumbar region of the affected side. This is invariably a constant symptom in the acute cases and rarely absent in the chronic cases.

Second—Where the ureter crosses the pelvic brim, which tenderness is nearly always present. This may become acute under pressure. It is here that the true condition is often mistaken for acute appendicitis.

Third—Where the ureter enters the bladder, which is almost invariably a constant symptom in the chronic, and also may be present in the acute, cases. This is often overlooked and can only be brought out by vaginal examination making it a subjective symptom.

Another constant symptom is pyuria usually to the extent of cloudy urine, though not always. Here I want to emphasize the value of a catheterized specimen from the bladder, especially in women. A voided specimen means almost nothing as far as kidney infection is concerned, for it will almost invariably contain pus from contamination with the vaginal secretions. A catheterized specimen, containing only a very few pus cells, always means there is an infection somewhere higher up.

The right side is much more commonly affected than the left. This is especially true in cases of pregnancy due to the anatomical position of the pregnant uterus causing pressure on the ureter where it crosses the pelvic brim. Out of a series of nine cases, three showed a double infection, both kidneys being involved, while in six cases the right kidney was involved alone. Two of these were complicated by pregnancy and one became pregnant a few weeks after the acute attack had subsided bringing on an acute exacerbation.

The true diagnosis is usually established with the above symptoms, but in any case of doubt and in all cases to be absolutely sure the patient should be cystoscoped and separate specimens collected. Routine examinations should be made of these specimens to determine the infecting organism and all cases should be stained for tuberculosis whether suspected or not.

Treatment—The treatment of pyelitis consists

*Read before the Orange County Medical Society, March 6, 1924.

of the active, passive and medicinal combined.

Active—This treatment or the cystoscopic treatment consisting of catheterization of the ureters and instillation of a few c.c. of the silver salts in solution gives the most gratifying results. This procedure only takes about fifteen minutes time and the relief is almost instantaneous. The pain rapidly subsides, the temperature drops to normal in from eight to twelve hours and the patients will tell you they are comfortable for the first time since the onset of the disease. The pyuria will gradually disappear. Rarely does it become necessary to do a second instillation in the acute cases, but in the chronic cases, which are always very persistent, it is usually necessary to do a second, third and sometimes fourth catheterization and instillation. The chronic cases are always ambulatory and this procedure can be carried out in the office with very little inconvenience to either the patient or the doctor. A short description of the routine technique we have found least troublesome and most satisfactory for both office and bed-side work is as follows:

First—Patient is placed in the ordinary dorsal position as for other pelvic examination.

Second—Bladder is emptied completely and about 5 c.c of a 1 per cent novocain solution is left in the bladder. With a blunt tip rubber bulb syringe the anterior urethra is filled with a 1 per cent solution of novocain and held there for three minutes. This produces satisfactory local anæsthesia.

Third—The patient is then changed to the knee-chest position and strict attention to this position is absolutely necessary for a satisfactory examination. The anterior surface of the chest must be in contact with the table as far as possible, the back dropped down as low as convenient and the knees separated about three inches. Most of the criticism of the air distention method is directed toward the position of the patient, but with a little care and explanation to the patient this position can be held for ten or fifteen minutes with very little discomfort and certainly gives a more satisfactory view of the inside of the bladder.

Fourth—The vaginal outlet is separated with the index fingers and vagina allowed to balloon up with air. This procedure should be explained to the patient previously as it will occasionally causes a little excitement and might upset the desired position.

Fifth—The urethra, having been previously

anæsthetized, is now dilated with sounds up to the size of the cystoscope selected for use. Here is an advantage over the water distention method in having cystoscopes of various sizes to fit each individual case.

Sixth—The cystoscope is inserted very slowly into the bladder. The obturator is removed and the bladder immediately becomes distended with air. This should be explained to the patient in advance as the inrush of air may cause temporary discomfort. The light is now turned on and adjusted so that there will be no glare, yet not too dim to cause hazy outlines of the mucous membranes. This should give a very satisfactory picture of the entire mucous membrane of the bladder which should be carefully inspected in every case. The cystoscope is now withdrawn until the cutoff muscle is reached, then pushed forward slowly with the end elevated until the biuteric ridge is seen. At each end of this ridge will be found the ureteral orifices. These should be carefully inspected for redness, ulcerations, edema and the character of the urine spurting out should be noted. Cloudy urine coming from the orifice will be noticed immediately. Separate specimens may be collected for examination by pressing the end of the cystoscope against the orifice and allowing the urine to trickle out through the 'scope.

Seventh—The infected ureter is catheterized and the catheter pushed in as far as possible until the kidney pelvis is reached. Difficulty may be noted at times where the ureter passes over the pelvic brim and may be confused with a stricture, but by manipulating the catheter this obstruction can usually be passed. The cystoscope can now be removed and the patient allowed to lie on her side, preferably the side catheterized.

Eighth—After a specimen has been collected a 1-1500 solution silver nitrate is slowly injected through the catheter into the kidney pelvis until the slightest bit of pain is noted by the patient. This is allowed to return through the catheter and the pelvis is again filled, after which the catheter is removed. The average capacity of the kidney pelvis is from 10 to 15 c.c.

There is ordinarily no after-effect in the acute cases, but in the chronic types there may follow a temporary edema of the ureter somewhere throughout its course, usually at the pelvic brim with the resultant hydro-nephrosis and considerable pain. This can be relieved very quickly by allowing the patient to sit in a tub of hot water. The above described method of cysto-

scopy, known as the air distention method or the Kelly method, applies only to females. For the male cases we use the Brown-Buerger cystoscope with practically the same procedure except for the differences in the position of the patient.

Passive—This treatment consists of rest in bed, milk diet with large amounts of water (we do not use alkaline waters because we use urotropin intravenously and it acts best in an acid medium), routine bladder irrigations daily with boracic acid solution and instillation of acriflavine 1:5000 solution with the request that the patient retain it as long as possible. This is especially beneficial to the irritated and inflamed trigone at the base of the bladder. We often have patients tell us they are more comfortable while this is in the bladder than at any other time.

Medicinal—After trying many medicinal agents in a large number of cases, we have concluded that hexamethylamine 31 grains (2.0 gms.) and uritone (P. & D. Co.) given intravenously, alternating every other day with sodium iodide 31 grains (2.0 gms.), give the best results.

COMMUNICATION.

The FLORIDA MEDICAL JOURNAL, during the past year, has made a decided improvement in its size, appearance and quality of its scientific articles, and much favorable comment has been forthcoming.

This improvement has been due entirely to the efforts of officers of the Florida Medical Association. They have contributed considerable time and energy to this accomplishment and deserve the commendation of the members of the Association.

Now, that this has been done and is to be carried on by these and other officers, it is essential and right that they receive the support, encouragement and activity of the entire membership of the Association—this means you and me.

Unless they obtain the cooperation, assistance and some expended energy on your part they will be handicapped in their endeavor.

The JOURNAL wants and solicits your ideas, your contributions, your scientific articles, your case reports and other items of interest to the medical profession.

Every man has ideas. Express yours and do it today. Tomorrow some one else may express

the same idea and you have lost your opportunity.

Newton had an idea when he saw an apple fall and the law of gravitation was the result. Columbus had an idea the world was round and the Americas were discovered. Morse had an idea that messages may be carried by copper wire and we have the telegraph.

Bell had an idea that the voice could be carried over electrically charged wires, hence the telephone. Marconi conceived the idea that electric messages and sound waves could be transmitted through the air and collected into receivers and the Radio became a possibility. The Wright brothers had an idea that man could fly and the airplane came into existence. Jefferson, Washington, Adams and others had an idea that a republican form of government was good for people to live under and democracy was born. Wilson applied the idea of self-determination through his fourteen points and the World War ceased.

What might we say of Christ, Cæsar, Napoleon, Stephenson, Whitney, Howe, Edison, and a host of others!

Civilization, governments, science, etc., depend upon ideas and their evolution. Give the JOURNAL your ideas. In your daily practice keep case records and report in full detail interesting and unusual cases—even usual cases with interesting phenomena and peculiar symptoms.

Write an editorial for the JOURNAL on some medical subject, bringing out some special observation and experience. This will be of benefit to you and will contribute to our general knowledge and enlightenment.

The JOURNAL belongs to you and me. A person gets out of a thing what he puts into it. If we put more of our ideas and energies to work for the JOURNAL one may rest assured to derive benefit from it.

I appeal to you not to let the JOURNAL lose its impetus and any of its appointments and accomplishments by your dereliction. If all of us move together and in concert, conscious of our responsibilities and duties, the JOURNAL will represent the attitude, interests and scientific attainments of the Florida Medical Association, and if we do not do this it will reflect discredit on every member.

(Signed) R. H. MCGINNIS.

The Journal of the Florida Medical Association

Owned and published by the Florida Medical Association.

Acceptance for mailing at special rate of postage provided for in
Section 1103, Act of Congress of October 3, 1917;
authorized October 16, 1918.

Published monthly at St. Augustine and Jacksonville. Price \$3.00
per year; 30 cents per single number.

Contributions for publication in this journal, whether scientific
papers or reports of County Secretaries, should be typewritten.

Address Journal of the Florida Medical Association, St. Augus-
tine, Florida, or 201-202 St. James Building, Jacksonville, Fla.

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THE ORLANDO PROGRAM.

The Scientific Committee and Officers of our Association are endeavoring to make the program of the May meeting the most successful the organization has ever held. Our body has grown proportionately with the State and last year our meeting demonstrated the necessity of a curtailment of the number of scientific papers on the program, for nearly one-third of the program was unfinished when the hour came for adjournment in spite of the fact that the usual session of the House of Delegates was dispensed with. Some abridgement was obviously necessary and when the Scientific Committee undertook the arrangement of a program for the Orlando meeting it was deemed necessary to secure papers by invitation only. A limited number are to appear on the program and a geographical distribution of the invitations has been attempted.

Another innovation this year will be the publication of a program containing a synopsis of each paper. The program will appear in the JOURNAL preceding the meeting and will also be in the hands of those attending the meeting.

Our committee is also arranging for a stenographic report of the discussions taking place on the floor of the assembly in order that they may be printed in the JOURNAL. These innovations should, and undoubtedly will, stimulate a more careful and thoughtful consideration of each essay. Diversified views of any subject are of untold value and should be as carefully preserved as the subject matter of the essay.

It is hoped that each essayist will co-operate with the Scientific Committee in their endeavors to add to the value of our session by sending a carbon copy of the paper to the men they expect to open the discussion, at least a week in advance of the meeting.

THE NURSE.

An Appreciation and an Admonition.

There can be no more dignified, high, or useful calling than the profession of nursing. This fact makes tremendous the responsibility of those who have entered and those who are entering the profession. I would say to both: that if you have chosen it for the purpose only of having occupation, or for the money that you may receive, or as a stepping-stone to something that you may consider better, or just, perchance, for novel adventure, then your heart is not in it and you cannot give your best service, and therefore

you are not fitted for it and would better seek other occupation that does not concern human life so closely, then you will be happier and your conscience will be clearer.

If you have entered it with a humanitarian spirit of service through sacrifice, and you are possessed with the highest ideals, common basic honesty, and withal industry and thoroughness, then you will not have lived in vain.

The profession of nursing is not a bypath or short cut to fame or fortune, but is the long road which leads through self-sacrifice, industry, and humanitarianism to that peace and happiness that comes through conscientious service.

The patient, who is sick mentally or physically, and most often both, is the object of all your aims and activities. You are the humble instruments through which the proper therapy is applied to him. Your object should be to get him well in the quickest, easiest, the most comfortable, and if possible, pleasant way to him. Keeping this in mind, work together in as perfect accord as possible to this end. Try to be honest, kind and efficient, improving your methods by the study of those of others and by your daily experience, and by original thought. When each evening comes review the day for errors that you may strive to avoid tomorrow, remembering that where there is self-satisfaction there is no progress.

Be courteous and kind, yet thorough and firm in all your dealings with your patients and their friends. Cooperate with thorough honesty and frankness with the doctor, and you can count on him as your friend.

HOSPITAL RECORDS.

The past three years have witnessed a forward step in a great majority of Florida's hospitals as regards the matter of keeping accurate and complete clinical records. A fair number of these hospitals have been placed on the accredited list by the American College of Surgeons, and others are soon to be so recognized.

Clinical histories and charts, when correctly compiled, are invaluable to the patient, the hospital, and to the attending physician. However, their greatest function is not fulfilled until they are used as a basis for medical and surgical essays and discussions.

The files of our leading hospitals are receiving each day the data from interesting and carefully studied cases; some charts record the opinion of numerous specialists; others include the final facts noted at the autopsy. A few men, or at best a small group, have received instruction from each case, but the medical body has not been touched.

Local interest is stimulated and the discussion "brought home" when the subject of an article is based on or illustrated by studies from completed cases in our own experience.

Our records are over three years old—they are available. Use them. Our men are well-trained. The opportunity is present—grasp it! It has been well said "the name of the present is N-O-W."

HYGIENE OF OLD AGE.

In a recent broadcast on the "Hygiene of Old Age", Surgeon-General Hugh S. Cumming makes a plea for a better understanding of this condition and argues for an attitude of optimism and cheerfulness when dealing with elderly people.

"There is too much of a tendency among persons reaching a certain age to persuade themselves that they have reached the last page of the book of life," says Dr. Cumming. "At this point," he continues, "many seem to think that both mental and physical activities should be relinquished. The contrary viewpoint should hold. Efforts should be made to preserve such an equanimity of mind and purpose that old age will become a period of comfort and enjoyment. Old age should be a physiological change of not unpleasant nature. Mental as well as physical diversion is essential to true happiness in old age. The reading of current newspapers and periodicals or of choice standard literature of the past is a definite antidote to the frequent habit of introspection and the tendency of the aged to despond. Sewing, weaving, simple carpentry, or other light manual occupations requiring dexterity and mental application are useful supplementary measures. The inclusion of the elderly in social gatherings and spirited conversations with younger persons is often stimulating. It should not be felt that a person is no longer entitled to an interest in life because he is old.

Radio broadcasting has opened up a vista of enchantment to the aged, especially to those with

impaired hearing or failing vision. Not only does radio interest and instruct but it often soothes. With its kaleidoscopic changes of program, radio offers diversion which is hygienically helpful. Good radio music is thoroughly enjoyable, no doubt beneficial. One should not, however, go to the extreme of keeping late hours even for interesting radio programs.

Many of the problems connected with the hygiene of old age are due to lowered mental power. Therefore, a cheerful and optimistic attitude towards the aged, especially during sickness, is essential to their well-being. Old people regard their condition as far less serious when fully dressed and out of bed. However, when an elderly person complains of being over-tired, or otherwise not physically fit, rest in bed for a day is advisable. By administering light and easily digested food and applying warmth to the body of an aged patient, he is often tided over a prospective illness.

Special attention should also be paid to proper clothing, diet and exercise of the elderly. Inasmuch as body heat decreases after the age of 40, exercise is required to provide some of the deficiency. An English physician who recently reached the age of 95 years, advocates and practices a daily walk in the open, regardless of the weather. He cautions, however, against exercising to the point of fatigue. While all old people may not be able to follow this hardy example, it is nevertheless true that a moderate walk on pleasant days is a beneficial stimulant.

The digestive powers of the elderly are less vigorous and there is not as great a demand for body fuel as in earlier years. The principal features of a proper diet in old age include: First, a diminished quantity of food; second, the ingestion of food at more frequent intervals and in smaller quantities and, third, the use of easily digestible food which does not produce either too large or too small a residue of waste matter. Persons of advanced age are almost invariably lean, have partaken moderately of food and drink

in earlier life and as a rule have eaten relatively little meat in later life. The foundation for a happy and comfortable old age is laid during the active earlier period of life.

With a reasonable attention to certain well-defined and easily accessible principles of personal hygiene, it is possible, in many instances at least, to retain one's faculties to such an extent as to make old age a pleasure rather than a burden.

PUBLISHER'S NOTE

A NEW ANTISEPTIC DRESSING.

The chlorine compounds seem to have been superseded by a new synthetic chemical antiseptic, and one, it is claimed, which does not labor under any disadvantages with respect to the preparation of solutions. This new product contains no chlorine, but bromine instead. Chemically it is known as dibrom-malonyl-ureide; commercially as Dibromin. Dibromin is offered by Parke, Davis & Co., and, like other specialties of this house, is offered on the strength of both laboratory and clinical experiment.

We are told that it has been used in upwards of five thousand cases, such as cellulitis, abscess, carbuncle, infected burns, trophic ulcers, suppurating lymph glands, compound fractures, surgical infections, dermatitis venenata, etc., and with success that it is now recommended in all sorts of accessible infectious processes—on the same principle as that which governs the application of the chlorine compounds. It has the usually high phenol coefficient of 105.

The one outstanding difference, however, between this new antiseptic and older ones of the same class is the ease with which it can be made ready for use. Add the Dibromin to the water, and shake a little; that is all. Dibromin is soluble in water up to 4 per cent. It is put up in 6-grain capsules. One capsule to a gallon of water makes a 1:10,000 solution.

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S. M. A. requires only the addition of boiled water to prepare.

(Orange juice, of course, should be given the infant fed on S. M. A., just as it is the present practice to give it to breast-fed infants.)

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the same time, so simple to prepare that the physician can rely on the mother to follow his directions accurately.

How is it possible to feed S. M. A. to infants from birth to twelve months of age without dilution or change?

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THE JOURNAL

— OF THE —

Florida Medical Association

OWNED AND PUBLISHED BY THE FLORIDA MEDICAL ASSOCIATION

VOLUME X
No. 11

St. Augustine and Jacksonville, Fla., May, 1924

Yearly Subscription, \$3.00
Single Copy, 30c

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PUBLISHED MONTHLY

Volume X

St. Augustine and Jacksonville, Florida, May, 1924

Number 11

PROGRAM

of the

FIFTY-FIRST ANNUAL MEETING

of the

FLORIDA MEDICAL ASSOCIATION

TO BE HELD AT ORLANDO, FLORIDA

May 13th and 14th, 1924

MAY 13, 1924, 9 A. M.

Call to order by L. C. Ingram, Chairman of Committee on Arrangements.

Opening Prayer, Rev. C. S. Long, D. D., Orlando.

Announcements.

Address of the President, H. Marshall Taylor.

MAY 13, 1924.

SCIENTIFIC ASSEMBLY—9:30 A. M.

Committee on Scientific Work: James D. Love, Chairman; L. S. Oppenheimer, Thomas Albert Neal.

Attention is called to the following By-Laws:

Chapter III, Article II-V.

"No address or paper before the Association, except those of the President or Orators, shall occupy more than twenty minutes in its delivery; and no member shall speak longer than five minutes, nor more than once on any subject."

"All papers read before the Society shall be its property. Every paper shall be deposited with the Secretary when read."

1. A Review of a Series of Splenectomy Cases, John S. Helms, Tampa.

Abstract—A consideration of three types of cases given; first, the indication of splenectomy in pernicious anemia; second, the indications for splenectomy in splenic anemia and Von Jasch's disease, some of the results that may be expected; and, third, splenectomy for malignant diseases of the spleen. Case histories illustrating each type. The technique of splenectomy.

Discussion opened by J. E. Boyd, Jacksonville; E. W. Bitzer, Tampa; J. Knox Simpson, Jacksonville.

2. Upper Urinary Studies: (1) The Pyelo-ureterogram. Lantern slides. Robert B. McIver, Jacksonville.

Abstract—Historical: Attempted in 1897 and successful in 1908. Since 1912 a practical procedure.

Technique: Teamwork necessary; care not to over-distend pelvis; speed important.

Conditions diagnosed or indicated: Normal, negative evidence, abnormal position, localization of stones and tumors, dilatation due to hydronephrosis, pyelitis or tuberculosis, and congenital anomalies.

Discussion opened by W. McL. Shaw, Jacksonville; J. C. Vinson, Tampa; E. T. Sellers, Jacksonville.

3. Surgery of the Stomach. Lantern slides. J. Shelton Horsley, Richmond, Va. (by invitation).

4. A Plea for the Early Diagnosis and Treatment of Pulmonary Tuberculosis. Lantern slides. Herrman H. Harris, Jacksonville.

Abstract—Among three thousand referred cases of Pulmonary Tuberculosis examined during the past five years, the number of early cases found is exceedingly small.

The salvation of the patient and the hope of the future depend upon early diagnosis and treatment.

No skill greater than that possessed by the average physician, necessary for diagnosis, if examinations are made thoroughly and repeatedly, supplemented by careful laboratory and X-ray studies.

Climatic treatment is not a therapeutic measure of value in Pulmonary Tuberculosis.

Discussion opened by R. H. McGinnis, Jacksonville; Horace R. Drew, Jacksonville; T. Z. Cason, Jacksonville.

5. Clinical Experiences with Insulin in the Treatment of Diabetes Mellitus. E. W. Bitzer, Tampa.

Abstract—Physiological action of Insulin.

Indication for Insulin.

Methods for Administration.

Methods for fixing the diet.

Methods in use at the Bayside Hospital.

Analysis of Cases.

Types of Cases.

Problems in connection with treatment after hospitalization.

Discussion opened by J. B. Wallace, Tampa; J. V. Freeman, Jacksonville; Louie Limbaugh, Jacksonville.

6. The Post-Operative Treatment of Peptic Ulcer. Harry A. Peyton, Jacksonville.

Abstract—The importance of a definite regime in post-operative treatment of peptic ulcer founded on modern principles of gastric physiology. Advantages of carbohydrate diet. Modern conception of gastric physiology as applied to ulcer. Outline of principles of treatment with report of illustrative cases.

Discussion opened by J. Shelton Horsley, Richmond, Va.; J. B. Wallace, Tampa.

7. Surgical Diagnosis. John S. McEwan, Orlando.
Abstract—(1) History taking. (2) Examination.
(3) Post-Operative Diagnosis.
Discussion opened by John S. Helms, Tampa;
Frederick J. Waas, Jacksonville.

GENERAL MEETING OF THE ASSOCIATION, 12:15 P. M.

The President in the Chair.

Reports of Officers.

Secretary-Editor and Treasurer, Graham E. Henson, Jacksonville.

Executive Committee, James V. Freeman, Chairman, Jacksonville.

Committee on Legislation and Public Policy, Wm. Rowlett, Chairman, Tampa.

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Tenth District—R. L. Cline, Arcadia.

Eleventh District—W. R. Warren, Key West.

Adjournment for Lunch.

SCIENTIFIC ASSEMBLY, 2 P. M.

8. Spirochetosis Bronchialis. Report of Case. J. B. Wallace, Tampa.

Abstract—Similarity of history, physical signs and X-ray findings to pulmonary tuberculosis. Necessity of laboratory diagnosis in cases negative for tubercle. Incidence of infection in United States and in tropical countries. Another type of spirochete involvement of the respiratory tract.

Discussion opened by W. P. Adamson, Tampa; R. H. McGinnis, Jacksonville; W. C. Blake, Tampa.

9. High Blood Pressure from the Standpoint of the Ophthalmologist. Michael Price De Boe, Key West.

Abstract—Many of the cases coming from the ophthalmologist for relief of headache have high blood pressure. Practically every case can be diagnosed with the ophthalmoscope. The first appearance of imbalance between arterial and venous pressure can be demonstrated at points where arteries cross veins. Every specialist, as well as every general man, is interested in the cause of hypertension and arteriosclerosis.

Discussion opened by E. C. Lowe, Key West; Norman M. Heggie, Jacksonville; Shaler A. Richardson, Jacksonville.

10. The Cistern Puncture, Its Value in Diagnosis and Treatment. H. Mason Smith, Tampa.

Abstract—A consideration of the theories of stone potentially a dangerous procedure, but when the technique developed by Ayer is skillfully followed it is safe and valuable, both as a diagnostic procedure and as a route for injection in cerebral conditions, chiefly meningitis.

Discussion opened by Ralph N. Greene, Jacksonville; J. H. Randolph, Jacksonville; W. H. Spiers, Orlando.

11. Urinary Calculi—Pre- and Post-Operative Considerations. J. C. Vinson, Tampa.

Abstract—A consideration of the theories of stone formation; the growth of the stone viewed as the result of some interference with urinary drainage. The removal of the stone only an incident in the cure of the patient; the prevention of stone recurrence by the correction of existing pathology.

Discussion opened by J. Brown Wallace, Tampa; Edmund H. Teeter, Jacksonville; C. D. Christ, Orlando.

12. Menstruation from a New View-Point. Anne Young, Tallahassee.

Abstract—Resume of previous theories. Brief statement of biological needs of fertilized ova in lower forms of life.

Discussion opened by J. Harris Pierpont, Pensacola; W. M. Rowlett, Tampa; John B. Black, Jacksonville.

13. The Present Status of Deep X-ray Therapy. J. C. Dickinson, Tampa.

Abstract—The development of deep X-ray therapy; comparative surface and depth dose of high and moderate voltage.

Tissue reaction to application of radiation.

Fallacy of so-called sarcoma and carcinoma dose.

Pre-operative and post-operative.

Field of usefulness.

Discussion opened by L. W. Cunningham, Jacksonville; Mack R. Winton, Tampa; Leland F. Carlton, Tampa.

14. Eventration and Hernia of the Diaphragm, with Report of Three Cases. Lantern Slides with Daylight Screen. L. W. Cunningham, and W. McL. Shaw, Jacksonville.

Abstract—Rarity of these lesions; moderate symptoms in most cases; difficulties of diagnosis with physical methods; confusion with pyopneumothorax, pneumothorax and dextrocardia. Several cases have been aspirated. Dextrocardia, if present, indicates exclusion of above. Differential diagnosis between hernia and eventration important from treatment standpoint. Roentgen ray as a factor in diagnosis by means of chest, barium meal and enema, and pneumoperitoneum study.

Discussion opened by J. C. Dickinson, Tampa; Herrman H. Harris, Jacksonville.

Adjournment.

Meeting of the House of Delegates—5 p. m.

MAY 14, 1924—9 A. M.

15. The Torn Perineum and its Bearing on Certain Sociological and Medical Problems. Calvin D. Christ, Orlando.

Abstract—(1) Its bearing on Sex Life. (2) Types of Tear. (3) Proper Repair as a Caution.

Discussion opened by J. N. Fogarty, St. Augustine; T. S. Fields, Jacksonville.

16. Maxillary Sinusitis, Chronic. A Survey of Sixty Cases. Joseph W. Taylor, Tampa.

Abstract—A study of sixty cases of chronic maxillary sinusitis; Showing relative frequency even in patients without marked symptoms. Ascending and descending infections. The value of transillumination and X-ray in diagnosis. Results of intranasal and radical operative treatments which method has proved more efficacious in the hands of the writer. Report of typical cases.

Discussion opened by J. Brown Farrior, Tampa; Samuel F. Smith, Tampa; A. K. Wilson, Jacksonville.

17. The Treatment of Septicemia and Local Infections. J. C. Davis, Jr., Quincy.

Abstract—By intravenous injections of the acridine compound—Neutral Acriflavine. Report of cases.

Discussion opened by Edgar Peters, Miami; S. E. Wilhoit, Quincy; B. F. Barnes, Chattahoochee.

18. Temporary Hypertrophy of the Pineal Gland at Puberty, with Cerebral Symptoms. Gilbert Osincup, Orlando.

Abstract—(1) Review of the Literature. (2) Case Report. (3) Conclusions.

Discussion opened by T. A. Neal, Orlando; Ralph N. Greene, Jacksonville; Stanley Erwin, Jacksonville.

19. Acute Osteomyelitis. J. Knox Simpson, Jacksonville.

Abstract—(1) The early pathology of pyogenic infection of the bones. (2) The symptoms which are produced by this pathology, enabling one to make an early diagnosis. (3) The absolute waste of the most

valuable time during the entire course of the disease, which is occasioned in the majority of cases by waiting for positive X-ray evidence of the disease. (4) Advocacy of early operation based upon clinical picture alone, as the only conservative plan of treatment.

Discussion opened by John E. Boyd, Jacksonville; J. S. McEwan, Orlando; L. W. Cunningham, Jacksonville.

20. Regional and Block Anesthesia. Alex. M. C. Jobson, Tampa.

Abstract—General history of this type of anesthesia since its beginning. All forms of Regional Anesthesia are widely discussed. Advice to the surgeon as to the mental attitude and technique. Preparation of the patient and attending nurses. Technique of Regional Anesthesia. Advantages of the method and its application to major and minor operations.

Discussion opened by John S. Helms, Tampa; Leon Ashley Peek, Palm Beach; Walter D. Webb, St. Augustine.

GENERAL MEETING OF THE ASSOCIATION, 12 NOON.

The President in the Chair.

Annual Election of Officers.

Adjournment for Lunch.

MAY 14, 1924, 2 P. M.

SCIENTIFIC ASSEMBLY.

21. Indication for the Mastoid Operation with Report of Case. B. F. Hodsdon, Miami.

Abstract—The indication of mastoidectomy not always a clear-cut picture. Case Report. Infected antrum followed by otitis media, mastoiditis with paralysis of external rectus without tenderness over the mastoid process.

Discussion opened by L. C. Ingram, Orlando; W. S. Manning, Jacksonville; A. H. Freeman, Jacksonville.

22. The Relation of Trauma to Malignancy. R. B. Harkness, Lake City.

Abstract—Brief reference to commonly recognized forms of chronic or repeated trauma and their relation to cancer. Reference to malignancy occurring directly or indirectly from definite isolated trauma. Case reports. The physician is responsible for prophylactic measures, and the industrial physician is doubly responsible to employer and employee in seeing that justice is done.

Discussion opened by Frederick Bowen, Jacksonville; H. C. Dozier, Ocala; J. W. Alsobrook, Plant City.

23. Ethylene-Oxygen Anesthesia. Gaston Day, Jacksonville.

Abstract—History and general characteristics of Ethylene. Method of administration. Advantages: Ease of induction and rapidity of recovery; relaxation without cyanosis; absence of sweating; absence of respiratory irritation; lessened post-anesthetic vomiting; more prolonged analgesia than with Nitrous Oxide. Disadvantages: Odor; narrow anesthetic margin; explosibility. Types of cases. Illustrations from fifty cases studied. Conclusions.

Discussion opened by Robert McIver, Jacksonville.

24. Hydatidiform Mole. Report of Case. G. H. Edwards, Orlando.

Abstract—Very rare disease of the chorion occurring in about one in three thousand cases, if all cases have been reported. More common in multipara, this case, however, is in a primipara. Question of malignancy. Diagnosis before evacuation rarely made. Symptoms and clinical history of case reported.

Discussion opened by Gerry Holden, Jacksonville; W. M. Rowlett, Tampa.

ENTERTAINMENTS

Tuesday, 3 p. m. Bridge Tea

Tuesday, 7 p. m. Banquet

Wednesday, 1 p. m. Luncheon

Wednesday, 8 p. m. Theatre Party



The Annual Golf Tournament for members of the Association will be held under the auspices of the Orlando Country Club.

A silver cup donated by Greenleaf and Crosby, of Jacksonville, will be awarded the holder of the low medal score.

HOTEL HEADQUARTERS ANGEBILT HOTEL

ORIGINAL ARTICLES

VINCENT'S DISEASE—WITH A REPORT OF TWENTY-SEVEN CASES.*

THOMAS ALBERT NEAL, M. D.,
Orlando, Fla.

In 1894, Vincent reported an ulcero-membranous disease of the tonsils and fauces, from which a fusiform bacillus, accompanied by a spirillum with certain staining and cultural properties, was isolated.

Prior to 1914 there was little in the medical literature on this important subject except the differentiation from lues and diphtheria.

The acute lesions were described as a grayish-white membranous inflammation on the tonsils and fauces, from which the membrane was easily separated, leaving an ulcer with a granular base and irregular margins. The physical symptoms of general malaise, a slight rise of temperature, rapid pulse and a fetid odor, which are characteristic of the infection.

The organism was described as a gram negative fusiform bacillus of large size, accompanied by a long spirillum.

There were cases of perforative ulcers from which the typical organism was recovered.

During this period there were investigators who doubted the specificity of this organism, contending that it is only a saprophyte and that it is recovered also from certain cancerous lesions, and is found in any healthy mouth. These critics, however, are of the class who contend that the tuberculosis organism does not cause tuberculosis and that William Shakespeare did not write the plays attributed to him. These same critics do not offer us any light, however, to explain the etiology of certain known lesions of the mouth already described.

We shall content ourselves with the known fact that in these peculiar lesions we always find the typical fusiform bacilli, usually in large numbers, especially in acute cases, accompanied by long spirilla which were described by Vincent, and that whenever the organism ceases to be found the lesion is healed and the patient ceases to be troubled with aggravated symptoms. Whether the organism be a red flag or the oncoming train is of little moment if we can find a way of curing the disease.

We shall not endeavor to review all the literature on this subject as it is quite voluminous, especially during the year 1920, and can easily be reviewed by those who are interested. The object of this paper is to stress the importance of this disease, which is not receiving the attention which it deserves, and urge the necessity of making it a reportable disease and using some means for the protection of the public against the carriers.

During the trench warfare in 1914 in Europe there occurred an epidemic throat and mouth disease, which was called trench mouth, for it was more or less common among the soldiers of all the armies subject to trench life, and gradually spread to the native population in France and Belgium.

These troops were being constantly shifted and the terrain was frequently exchanged, so that any communicable disease was easily spread, especially as it was practically impossible to detect the infection and to take necessary precautions against the spread through the food containers and cooking utensils owing to the closeness of quarters in trench life. These cases were manifested by an ulcero-membranous inflammation involving the mouth and throat, with specific predilection for the gums and buccal surfaces after primary invasion, which frequently occurred on the tonsils and fauces. Many of these cases were so severe that the gums were destroyed, leaving large pus pockets between and around the teeth, so that in many instances all of the teeth were sacrificed in order to clean up the pus pockets.

The American troops acquired the disease, which was prevalent when they reached France, and at that time the native population showed many cases. Many surgeons with whom I have talked, who were in and around Paris at the time of the armistice, told me that following the orgie of general kissing which took place in Paris on the night of the armistice there was a large number of mouth infections among the American troops.

The returning troops brought the disease to America, and at the demobilization centers and large hospitals on this side large numbers of cases of Vincent's disease were found. Quite frequently, I am sorry to say, these boys who were otherwise physically well were demobilized

*Read before the Fiftieth Annual Meeting of the Florida Medical Association held at Jacksonville, May 15, 16, 1923.

and sent home to their families and friends, active carriers. We cannot censure the medical department very much, since they were spurred on by hurry-up orders from Washington to get men home and commanding officers were bombarded with letters and telegrams from families, friends and members of Congress to have soldiers discharged.

In many cases the disease was quiescent and no longer gave trouble, especially since the possessor had become more or less accustomed to having gums that were tender and that would bleed easily and seemed to think there was no cure for the condition. When one of these carriers reached home and had finished kissing his family, friends and his best girl, we need not wonder why a goodly number of cases occurred amongst people that had never been to war.

The treatment given the soldiers was essentially the application of antiseptics locally. The agents used varied in different hospitals, but included silver nitrate in strong solution, tr. iodine, sodium perborate, peroxide of hydrogen, liquor arsenalis, methylene blue, menthyl-violet, and salvarsan both locally and intravenously. The fact that there was no uniformity in treatment, when it could have been easily made uniform by a military order, is presumptive evidence that no one remedy was satisfactory. Many of these soldiers also sacrificed an otherwise set of perfect teeth, by extraction, in an effort to cure the disease.

Since early in 1921 the author has diagnosed and treated some twenty-seven cases of Vincent's disease, and wishes to call your attention to certain diagnostic symptoms which have helped him and also to the treatment which has yielded good results in this series. More than half of these cases were chronic and varied in form from a few months to several years in duration since the original symptoms. Diagnosis must be made between acute streptococcus tonsilitis, syphilis primary or secondary, diphtheria and Vincent's disease. The mild character of an ordinary attack would go far toward eliminating streptococcus sore throat. The Wassermann would be of service in differentiation from lues, although Vincent's organism sometimes gives a positive Wassermann (Martinet). It is highly important in a suspected case to make a smear as well as a culture to differentiate Vincent's disease from diphtheria, because Vincent's organism is anaerobic and would not grow in a

surface culture. The specimen may be stained with methylene blue or carbol-fuchsin. The spirilli stain more faintly than bacilli. The bacilli predominate in acute cases, while from chronic cases with deep pockets the spirilli are quite numerous. While it is very important to diagnose all cases, the ones which offer most interest in this paper are the carrier cases whose lesions are not as outstanding and are frequently overlooked. They see the dentist oftener than the physician and are frequently treated for pyorrhœa. These cases, in addition to the ordinary symptoms, which they certainly have, usually show remarkable uniformity in a pale grayish-white, hard palate and usually gray membranous spots on the buccal surface opposite the last molars and frequently grayish spots over the gingival surface around the last molars.

A distinctly fetid odor is practically always present and is one of the characteristics. It is so characteristic that once having smelled it you will always recognize it.

The writer has been doing some original work with hydrastis for the past ten years and had discovered properties which induced him to try it in this disease.

He had found the drug to possess rather high powers as an antiseptic, and Col. Vedder, of the U. S. Army, worked up the antiseptic factor in terms of carbolic acid for him in 1919. In addition, he had found that hydrastis paradoxically acted both as an astringent and a stimulant to healing.

The cell count in septic wounds was reduced markedly after local application.

Early in 1921, an ex-service man from the Great Lakes Station near Chicago came with an ulcero-membranous inflammation involving the gingival surfaces around the last molars, with a fetid odor, with a history of having acquired the disease in 1919 while in service; and treatment, while in service and subsequently by Chicago dentists, with only temporary improvement. His family was wealthy and he had apparently received treatment at the hands of good men.

Smears made showed typical Vincent's organism, both bacilli and spirilli. He was given a treatment with a freshly prepared tr. of hydrastis, applied with a DeVilbiss atomizer twice daily, and showed marked improvement after first treatment. Smears were taken every few days and showed fewer organisms each time. After ten days' treatment no visible symp-

toms could be seen. Another week of treatment once per day was kept up as a precautionary measure. He was then ordered to return in a week after all treatment had been discontinued and smears were taken, which were negative. This young man returned to Chicago, but wrote me at intervals of two weeks for two months and reported no return of symptoms. The patient was given treatment twice daily, and with the exception of an alkaline mouth wash no other treatment was used.

The first slide showed many organisms, both fusiform bacilli and large spirilli. After one week's treatment practically all discomfort was gone and all grayish-white spots had disappeared; however, the platinum loop searching out the pockets were still rewarded with a few of the typical organisms. This line of treatment with all cases found has proven satisfactory. There is an added advantage in the use of this remedy, inasmuch as mixed infections of the mouth seem to be much benefited also. It is important in the technic to use some kind of forced application, inasmuch as the organism being anærobic thrive best in deep pockets between the teeth and under overhanging gums. I usually also spray the tonsils, especially if they are cryptic.

There was one interesting case in these twenty-seven in which a positive case of diphtheria was pronounced, which I saw in consultation in a woman aged forty, who had been given large doses of diphtheria antitoxin; and while she showed some improvement, remained quite ill and had ulcero-membranous lesions in both tonsils. Smears from her throat revealed Vincent's organism in large numbers. She made improvement and recovery by the use of ahydrastis spray.

No case thus far in our series shows double infection of lues and Vincent's disease, but it is surprising that we do not find this combination, inasmuch as Vincent's organism seems to have a predilection for mouths which have a low vitality.

We found it advantageous to use hydrogen peroxide as a cleansing agent before using ahydrastis, for in this manner we get rid of a great deal of debris and a very much clearer field for action of the ahydrastis.

It is interesting to note that in the same time covered by this series of cases, the author has seen three times as many cases of Vincent's dis-

ease as he has diphtheria, and we believe that it is a fair index of the prevalency of the two diseases. We believe that undoubtedly many cases are acquired from public drinking places and eating places, and we believe that strict measures of sanitation should be enforced on all such places.

CONCLUSIONS.

1. Vincent's disease, since the return of many carriers from over-seas, is quite prevalent in this country.

2. Vincent's disease is often seen in its chronic stage and is mistaken for pyorrhea by both dentist and physician.

3. Chronic cases are true carriers, and can and do convey the disease to others through drinking cups and eating utensils.

4. The disease is easily diagnosed, and while many remedies may be serviceable, the belief of the author is that hydrastis applied under pressure offers a sure cure.

5. The disease should be made reportable.

6. Suitable sanitary safeguards should be enforced in public eating and drinking places.

BIBLIOGRAPHY.

- Barnes, H. A.: Medical Clinics of North America. Jan. 1920, p. 997.
 Duhig, S.: Medical Journal Australia, 1920, p. 577.
 Shea, J. J.: Southern Medical Journal, July, 1920, p. 524.
 McDonagh, I. E. R.: July 21st, Vol. CLXI.
 Schoetz, W.: Medizinische Klinik, Vol. XVI.
 Shields, C. L.: Northwest Med. XIX, 1920.

THE TREATMENT OF HEART DISEASE.*

MEREDITH MALLORY, M. D.,
 Orlando, Fla.

In presenting the subject of the treatment of heart disease, it seems sufficient to confine this paper to the common disorders and most especially to those connected with a failing myocardium. Those cases that are more uncommon are usually more obscure and only come to the attention of those who are specialists in cardiology and who are fortunate enough to have more time to study the individual cases and who are equipped with the different instruments of precision. Further, these cases are usually so little understood as yet as to pathology and physiology that the treatment, to say the least, is highly unsatisfactory.

The fundamental principles of heart therapy have changed but little in the last fifty years, but

*Read before the Orange County Medical Society, March 6, 1924.

it sometimes seems necessary to refresh one's mind and review the subject. However, like other branches of medicine, the study of the prevention of heart disease is becoming the most important.

The cancer and tuberculosis problems have been brought before the eyes of the medical profession and laity so prominently that cardiac conditions have been greatly overshadowed. Since the war more attention has been directed to this problem mainly due to the activity of the Association for the Prevention and Care of Heart Disease. This society was organized in New York City in 1916 when it was found necessary to co-ordinate different agencies and systematize the work as was done for cancer and tuberculosis. The war interfered to a large extent with the work, but since the armistice great strides have been made and the society is gaining a foothold all over the country. Another factor to awaken the medical profession to the seriousness

of the situation was the large number of men turned down by the army for war service. Any who examined men will well remember how many abnormal hearts were found and this is not taking into consideration the condition known as soldier's heart, irritable heart, or neuro-circulatory asthenia, which has greatly decreased now that peace has been declared, although one may be found occasionally.

Statistics, while a bit boresome, will show you better than any other method the size and seriousness of the situation and the following are offered:

(1) The principle causes of death for the 2 years, 1921 and 1922.

(2) Mortality from heart disease in the 10 original registration states:

(3) Mortality from heart disease: U. S. Registration Area.

Death rate per 100,000 population:

Causes of death	1922	1921	1922	1921	1922	1921
All causes	1,101,863	1,032,009	1,181.7	1,163.9	100.00	100.00
Disease of heart	154,495	139,264	165.7	157.1	14.0	13.5
Influenza and pneumonia	124,441	88,456	133.5	99.8	11.3	8.6
Tuberculosis	90,452	88,135	97.0	99.4	8.2	8.5
Nephritis	82,518	75,696	88.5	85.4	7.5	7.3
Cancer	80,938	76,274	86.8	86.0	7.3	7.4
Cerebral Hemorrhage and softening	80,191	74,111	86.0	83.6	7.3	7.2

Year	Population	Number of Deaths	Rate per 100,000	No. Deaths to every 100
1900	19,685,989	26,879	136.5	
1905	21,431,243	34,636	161.6	118
1910	23,813,784	42,865	180.0	132
1915	25,841,353	49,742	192.5	141
1917	26,658,060	55,425	207.9	152

Year	All forms heart disease	Pericarditis	Acute Endocarditis	Organic heart disease	Angina Pectoris
1900	131.9	2.6	11.9	111.1	6.4
1905	152.1	1.7	12.5	131.2	6.7
1910	158.8	1.2	8.9	141.5	7.2
1915	165.1	1.1	9.1	147.1	7.7
1916	168.0	1.0	9.3	150.1	7.6
1917	170.9	1.1	8.9	153.1	7.9
1918	169.0	1.1	8.2	152.3	7.4

The army reports for the late war show that the heart impairment was 26.26 per thousand or not quite 3 per cent. In looking over statistics on the death of 8,408 males, it was found that 1,811 or 21.5 per cent were complicated by diseases of the heart. In the public schools of New York alone, there are no less than 20,000 school children with damaged hearts and the New York 1919 records show there were 10,421 deaths due directly to organic heart disease while 7,396 died from tuberculosis (all forms) and 5,141 died from cancer.

From the meager statistics given, we can see what an important part heart disease is playing in the mortality records and why it is time that

physicians not only give proper care to those afflicted, but must recognize and treat those cases that predispose heart involvement. This work cannot be confined to the cardiac specialist but must be accomplished by the profession as a whole and it will be as soon as the real danger is recognized.

The treatment of heart disease must first be in regard to the degree of failure and then as to the etiological factor producing the damage. A simple classification as to etiology is as follows:

1. Congenital heart disease.
2. Rheumatic heart disease.
3. Syphilitic heart disease.

4. Hypertension heart disease, including nephritic conditions.
5. Arterio-sclerotic heart disease.
6. Thyroid heart disease.
7. Diphtheritic heart disease.
8. The nervous heart.

As all the conditions lead to heart failure, it seems best to take up the end results first. A failing heart means that the cardiac musculature is using its reserve energy and it is very necessary to restore normal conditions as nearly as possible, and this is only accomplished by advocating the inactivity of the heart as far as extra work is concerned. While absolute rest cannot be given still it must be approached and while it may seem unnecessary to emphasize the importance of rest, but few seem to realize just what rest means, and the degree of rest that the patient needs. A failing heart will never be able to restore its reserve force unless the circulatory load is reduced to a minimum. This means not only physical but mental rest and to be free from any nervous excitement.

Bed is absolutely necessary and it is imperative that the patient arise for nothing, all of his wants should be cared for while in bed. Just the position of the body is an individual affair depending altogether upon how the patient is the most comfortable. This has to be largely in regard to the degree of dyspnoea. While the patient is quiet physically, all business cares and worries should be kept from him; no excitement whatever should be allowed in the sick room.

The length of time that a cardiac patient should stay in bed is very variable depending upon: (1) The degree of failure. (2) The exciting cause of the failure. (3) The age of the patient. It is usually safe to say that absolute rest should continue from seven to ten days after the signs of failure have disappeared. In a very old person it may be well to lessen this somewhat, for elderly people do better if not kept in bed too long.

While the subject of rest is very important, the return to activity must be given consideration. As a diabetic has a diet built slowly to find a tolerance, so must one's activity gradually be increased to reach a "cardiac tolerance." This must be done slowly and the patient allowed a little or more exercise each day. There are several systems of graduated exercises that have been advocated such as those given by M. Herz,

P. Henrik Ling, Schott, etc., but it is unnecessary to go into these in detail here.

The relieving the patient's mind of anxiety is a most important part in the treatment of these cases. It is quite natural that one becomes very much concerned when the most vital organ to life is not functioning properly and it is highly important that the condition be explained in a manner that will not excite the patient and still forceful enough so that the cardiac muscle will be protected.

Diet should be advised so that the digestive organs, which are more or less congested, will not be over-burdened. A very light, nutritious diet is preferable, feeding in small amounts and often. In many cases milk is the best article of food, while in advanced cases of edema liquids should be curtailed. Alcohol, tea, coffee and tobacco should be restricted and in many cases prohibited.

The use of drugs in heart disease has been greatly over-emphasized by many. The opiates are of great value, more so than is usually estimated. It is only with this class of drugs that the needed rest is procured in many cases. While codeine will in most instances be sufficient, still many times morphine is needed until the heart is again able to keep the circulation in balance. The use of bromides, chloral, etc., is recommended after the heart has begun to resume its functions. Digitalis is, of course, the most widely used cardiac drug. The benefit derived is due to the fact that it slows the rate, slows the conduction time and increases the force of ventricular systole. The fact that it does slow the rate and conduction time is the great reason that beneficial results are derived from its use, for again the heart is getting its much-needed rest as these two things tend to increase diastole or the rest period. There is, and probably always will be, considerable difference of opinion as to the form of digitalis, the method of administration and the dosage. So far there is no preparation that will take the place of digitalis leaves or the fresh tincture and the use of all the proprietary compounds should be condemned. Satisfactory results can be obtained by oral administration, but if quick action is desired the tincture can be used intramuscularly. The dosage depends on which method of digitalizing is desired. The large dose method seems more efficient, not only because one gets the patient digitalized more quickly, but also there is less liability of producing

nausea. By this procedure one may give 6-8 grains of the powdered leaf or a dram of the tincture three times a day for three days, then half the dose for three days, and then again in half, until the heart has either shown the effects of too much digitalis or the circulation is in balance. When the pulse has dropped to sixty per minute, digitalis should be stopped.

There is no doubt but what such drugs as caffeine, theobromine, camphor, etc., do good, but their effect is so transitory that they cannot be relied upon to restore function.

Strychnine, according to pharmacologists, has no place in cardiac therapy and while it probably does not act in any way upon the circulation, still it does give a certain tone to the nervous system that helps the "well-being" of the patient.

After the circulation has been restored to its proper balance, it is well to go into the cause of the failure and if possible remove the cause. If one could do this before failure took place, the incidence of heart disease would be greatly lessened.

Rheumatic infection is the greatest cause of heart failure and one should examine a cardiac case very carefully for any foci of infection. All infected and doubtfully infected foci, such as teeth, tonsils, appendices, gall-bladders, prostates, etc., should be removed if possible. Rest is most important in this class of cases than in any of the others. Digitalis should be used with caution but it is especially indicative if auricular fibrillation is present. Many advocate the use of salicylates and they will at least do no harm. If the rheumatic infection has reached the so-called septic stage as in sub-acute bacterial endocarditis the outlook is very unfavorable. Some clinicians report success with the intravenous administration of sodium cacodylate and it should be given a thorough trial. Transfusion will often be of benefit in this type of heart disease.

Syphilitic heart disease is probably the next largest class of cardiac cases and the treatment is essentially that of syphilis. It is doubtful if any real good comes from the use of arsphenamine, although many advise it. Mercury seems to be more efficient in this stage of syphilis and the old inunction method of administration will prove as highly satisfactory as any, but not so lucrative as the intra-muscular. There is no question but what the system absorbs mercury given through the skin. Iodide of potassium

should be pushed to the limit, some cases standing as much as 300 grains a day.

The treatment of hypertension heart disease is primarily that of the underlying condition. If due to nephritis it is necessary that the kidneys be given special attention; if due to diabetes, that must be cared for; while if constipation is the basis, then the intestinal tract must be kept free of toxic substances. A certain number of cases of hypertension fall into the class of idiopathic and while there may be some good derived from eliminating different sources of infection, it is well to try such drugs as nitroglycerine, sodium nitrite, etc. Many men are reporting results with large doses of benzyl benzoate, and some patients do seem to respond to its use.

The arteriosclerotic heart is usually seen in old people and the treatment is mainly supportive; baths, light, nutritious diet and tonics.

Thyroid heart disease in many ways is a subdivision of the hypertension heart, but the toxic substance is more severe on the heart muscle if the condition is allowed to persist. If complete rest and bromides do not quiet the activity of the thyroid gland, roentgen rays should be tried and finally, if necessary, one should resort to surgical measures.

In diphtheria, preventive measures are the important thing. Antitoxin should be given in large doses, intravenously, if necessary. Intracardiac administration of adrenalin has been reported as being successful in diphtheritic heart failure. Digitalis does no good.

The nervous heart or irritable heart received most of its prominence during the war and is rarely seen now. Many theories were advanced as to the cause, many thinking it was due to an infection, but as the number decreased after peace was signed, the treatment should probably be directed toward the mind.

The convalescent period of heart disease is becoming a very important phase, especially from the occupational standpoint. In the large cities it is especially true where it is estimated 2 per cent of the people are suffering from organic disorders of the heart. Sanatoria for cardiacs are coming into existence and here carefully supervised graduated exercises are given. This is all done under medical direction and it is quite remarkable the number that are able to take up heavy occupations. How much each patient does is governed by the pulse rate, the irregularity,

cyanosis and dyspnoea and the response of the heart to exercise.

Fully as important as carrying the patient through the period of broken compensation is the guiding of his future life. Most of these people are self-supporting and it is very necessary that they do some sort of work and it is up to the medical profession to determine for each patient his cardiac limit as nearly as possible. It is the repeated demand for over-exertion that is harmful.

Before closing it might be well to quote a few figures of encouragement. While not strictly in reference to heart disease, still they are in regard to the greatest single etiological factor, acute rheumatism, and will have a direct bearing on rheumatic hearts. In 1909, 2.45 per cent of the admissions at Bellevue Hospital were due to acute rheumatic fever. While there were some fluctuations, still there was a steady increase and in 1919 the admissions were 0.52 per cent of the total. This is undoubtedly due to the removal of infectious foci and while some are accused of being too radical in the advice in regard to tonsillectomies, teeth extraction, etc., still I can but feel that the future generations will profit greatly if a continued vigilance is kept up for foci of infection and their relation to the cardiac problem.

A MODEL CONSTITUTION AND BY-LAWS FOR THE MEDICAL STAFF OF HOSPITALS.

JOHN S. HELMS, M. D., F. A. C. S.,
Tampa, Fla.

ARTICLE I.

The name of this organization shall be known as "The Medical Staff of the _____ Hospital."

ARTICLE II.

The purpose for which this staff is organized is: The promotion of the highest standards of medical and surgical practice, with special reference to the conduct of such practice in this hospital.

ARTICLE III.

The meeting place of the Staff shall be the _____ Hospital, or such other places as may be designated by the Staff.

ARTICLE IV.

Each of the Staff members shall be appointed annually by the Board of Directors of the Hospital, provided each member so appointed shall serve free of charge all charity patients admitted as such into the hospital. In the interim of regular yearly appointments recommendations of changes in the personnel of the Staff may be made to the Board of Directors by the Staff.

ARTICLE V.

The Staff service shall consist of two divisions, viz: Division of Medicine, and Division of Surgery. The Division of Medicine shall be divided into the following Sections, viz: (1) Section on Internal Medicine. (2) Section on Pathology and Bacteriology. (3) Section on Roentgenology. (4) Section on Neuro-psychiatry. (5)

Section on Pediatrics. The Division of Surgery shall be divided into the following Sections, viz: (1) Section on General Surgery. (2) Section on Gynecology. (3) Section on Obstetrics. (4) Section on Urology. (5) Section on Ophthalmology and Oto-laryngology. (6) Section on Dentistry.

ARTICLE VI.

Staff positions shall be designated as follows, to-wit:

- (1) Head of Section on Internal Medicine.
- (2) Head of Section on General Surgery.
- (3) Head of Section on Pathology and Bacteriology.
- (4) Head of Section on Roentgenology.
- (5) Head of Section on Neuro-psychiatry.
- (6) Head of Section on Pediatrics.
- (7) Head of Section on Gynecology.
- (8) Head of Section on Obstetrics.
- (9) Head of Section on Urology.
- (10) Head of Section on Ophthalmology and Oto-laryngology.
- (11) Head of Section on Dentistry.

Provided that a position as consultant shall be provided in each Section.

The Staff shall be divided into the number of groups corresponding to the highest number of Staff members appointed for any one Section of Staff service. Each group shall be composed of eleven members corresponding to the eleven Sections of Staff positions. The group shall be designated as follows, viz: Group one, Group two, etc. Each group shall serve in rotation according to number for term of three months. Each group shall be selected in alphabetical order from the names of the members of the Staff appointed to serve under each Section of service.

ARTICLE VII.

Each member of the Staff shall recognize the Minimum Standard of the American College of Surgeons as the basis of the organization of this hospital, and shall sign the following agreement in duplicate:

The _____ Hospital.

To the Board of Directors
_____ Hospital.

In accepting the honor and responsibility of a position on the Staff of the _____ Hospital, I hereby agree:

(1) To abide by the rules and regulations of the hospital, and to adhere at all times to the well-recognized, lofty principles governing the reputable practice of medicine and surgery.

(2) That as a principle I shall not engage in the division of fees under any guise whatever, nor knowingly permit any agent or associate of mine to do so.

(3) To exercise to the best of my ability a constructive interest in the hospital, and to co-operate in making it as potent a factor as possible in the preservation of public health in this community.

(Signed) _____.

ARTICLE VIII.

Each member of the Staff shall receive from the Board of Directors a suitable certificate of his appointment bearing the following data, viz: Date of appointment; Name of hospital or hospitals; Term or expiring date of appointment; Staff position to which appointed; Number of certificate and signature of Chairman and Secretary of Board of Hospital Directors.

ARTICLE IX.

Section 1. All members of the Medical Staff of the hospital as well as all other physicians who may receive the privileges of the hospital, shall recognize the supreme authority of the Board of Directors of the hospital in all matters pertaining to the relations of themselves both professionally and personally to the hospital as well as that of their patients, and shall abide by the decision of this Board in all matters concerning these relations.

ARTICLE X.

This Constitution may be altered by a three-quarters vote at any regular meeting of the Staff, written notice having been given the Staff at a previous meeting, and

each member having been advised in writing of the proposed change.

BY-LAWS.

ARTICLE I.—MEETINGS.

Section 1. The annual meetings of the Staff for the organization and election of officers of the Staff shall be held on the first Tuesday of the month following the regular appointment of Staff members by the Board of Directors.

Section 2. Clinical meetings of the entire Staff shall be held on each Tuesday evening at 8 o'clock following the first day of the months of October, November, December, January, February, March, April, May and June.

Section 3. At clinical meetings of the Staff, the order of business shall be:

- (1) Minutes of the last clinical meeting.
- (2) Suggestions for the good of the hospital service.
- (3) Clinical program.
- (4) Adjournment.

ARTICLE II.

Section 1. The officers of the Staff shall be a Chairman, Vice-Chairman, and Secretary, who shall be elected every three months by a majority vote of the Staff; provided that these are elected from the Group which is on service during the corresponding term of office. Each officer shall hold office for three months or until his successor shall have been chosen. A vacancy in any office shall be filled at any regular meeting of the Staff by a vote of a majority of the Staff. The officers shall constitute a program committee for their term of office.

ARTICLE III.

Section 1. There shall be elected from the members of the whole Staff at the annual meeting of the staff provided for in Article I, Section 1, a Board composed of three members, same to be known as the Medical Advisory Board of the Medical Staff of the hospital. The term of service of this Board shall be one year.

Section 2. The duties of the Medical Advisory Board of the Medical Staff shall be to meet with the Board of Directors of the hospital at their invitation, to serve the Board of Directors in any helpful and constructive capacity whatsoever, to report to them when called upon the general type and efficiency of the professional work done in the hospital, and to otherwise represent the Staff as a whole in any matters concerning the Medical Staff's relation to the hospital.

ARTICLE IV.

Section 1. The Chairman, Vice-Chairman, and Secretary shall ex-officio compose a Committee on Records during their term of office.

Section 2. The duties of the Committee on Records shall be to have jurisdiction over the records of all patients cared for in the hospital, both pay and charity, by any physician or surgeon whether on the Staff or not. This committee shall co-operate with the Medical Advisory Board of the Staff on the selection of a Historian on request. It is suggested that the duties of the Historian include the following, viz:

- (a) A general supervision of the records and methods of filing the same as found most convenient for all concerned.
- (b) To see no history is filed without all parts completed.
- (c) To keep the proper cases indexed and cross systems of reference.
- (d) To make such statistical studies as shall be asked of the hospital. The assistance of the Staff Committee may be asked for.
- (e) To carry out a follow-up system.
- (f) To be responsible that the operative sheet is properly filled out at the time of operation. An operating room assistant may do the actual recording under the authority of the historian.
- (g) To report to the Record Committee of the Staff

any physicians who are persistently negligent about matters pertaining to the records.

Section 3. The system of Records of the hospital shall be as suggested by the Committee on Standardization of Hospitals of the American College of Surgeons; copies of which are filed herewith as Exhibit "A." A copy of the records of all cases cared for in the hospital shall be the property of the hospital.

ARTICLE V.—DUTIES OF OFFICERS.

Section 1. The duties of the Chairman of the Staff shall be to preside at meetings, to appoint necessary committees, and to perform such other duties as pertain to his office.

Section 2. It shall be the duty of the Vice-Chairman to preside at all meetings in the absence of the Chairman.

Section 3. It shall be the duty of the Secretary to keep complete record of the proceedings of the Staff, to preserve all Staff documents, to mail in due season written or printed notices of every meeting to each Staff member, and note the membership in attendance.

Section 4. It shall be duty of the Program Committee to arrange a scientific program for each meeting during their term of office, same to be announced at least one week in advance of meetings.

Section 5. Each member of the Staff shall agree to devote such time to the Training School of Nurses in his branch of the work as he may be called upon.

Section 6. The deliberations of this body shall be governed by Robert's Rules of Order.

ARTICLE VI.—ALTERATIONS OR AMENDMENT OF BY-LAWS.

Section 1. These By-Laws may be altered or amended by a two-thirds vote of the Staff at any regular meeting of the Staff, written notice having been given the Staff at a previous meeting, and each member having been advised in writing of the proposed meeting.

THE MINIMUM STANDARD.

1. That physicians and surgeons privileged to practice in the hospital be organized as a definite group or staff. Such organization has nothing to do with the question as to whether the hospital is "opened or closed," nor need it effect the various existing types of Staff organization. The word *Staff* is here defined as the group of doctors who practice in the hospital inclusive of all groups such as the "regular Staff", the "visiting Staff", and the "associate Staff."

2. That membership upon the Staff be restricted to physicians and surgeons who are (a) competent in their respective fields and (b) worthy in character and in matters of professional ethics; that in this latter connection the practice of the division of fees, under any guise whatever, be prohibited.

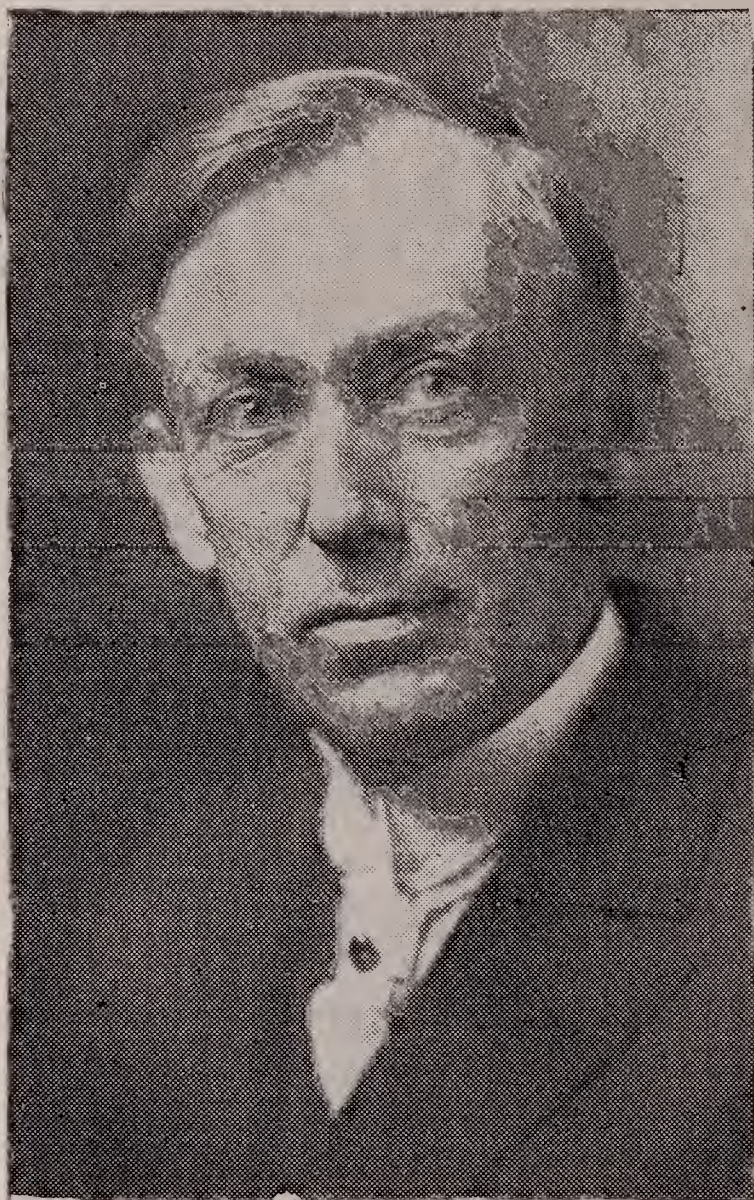
3. That the Staff initiate and, with the approval of the governing board of the hospital, adopt rules, regulations, and policies governing the professional work of the hospital; that these rules, regulations, and policies specifically provide:

(a) That Staff meetings be held at least once each month. (In large hospitals the department may choose to meet separately.)

(b) That the Staff review and analyze at regular intervals the clinical experience of the Staff in the various departments of the hospital, such as medicine, surgery, and obstetrics; the clinical records of patients, free and pay, to be the basis for such review and analysis.

4. That accurate and complete case records be written for all patients and filed in an accessible manner in the hospital, a complete case record being one, except in an emergency, which includes the personal history, the physical examination, with clinical, pathological, and X-ray findings when indicated; the condition on discharge with final diagnosis; and, in case of death, the autopsy findings when available.

5. That clinical laboratory facilities be available for the study, diagnosis, and treatment of patients, these facilities to include at least chemical, bacteriological, serological, histological, radiographic, and fluoroscopic service in charge of trained technicians.



In Memoriam

James M. Jackson, M. D. 1866 : 1924

*"Greater love hath no man than this, that a man lay
down his life for his friends."—St. John 15:13.*

A friend to all humanity—the memory of James M. Jackson will be held in one of loved reverence and respect by all who knew him. His acquaintances were legion and the most casual of these his friends.

A man of seemingly wonderful physical endurance, one of a pleasing and happy disposition, one of unusual skill in his profession, he was ever ready with a response to the call of distress.

With not a selfish thought, with absolute abandonment of personal interests, with a self-sacrifice such as Christ Our Savior preached, Doctor Jackson devoted his life to the relief of suffering humanity. His services were as much at the command of the needy as the affluent, a call to distress was a call to duty—and with him he never swerved where duty called. He lived a beautiful life—in a beautiful home and surroundings such as he deserved. An inspiration not only to his immediate loved ones but to all with whom he was associated in the slightest degree. It was such a life that must have inspired those beautiful words :

*"Lives of great men all remind us
We can make our lives sublime,
And, departing leave behind us
Footprints on the sands of time;

Footprints, that perhaps another,
Sailing o'er life's solemn main,
A forlorn and shipwrecked brother,
Seeing, shall take heart again."*

The Journal of the Florida Medical Association

Owned and published by the Florida Medical Association.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of Congress of October 3, 1917; authorized October 16, 1918.

Published monthly at St. Augustine and Jacksonville. Price \$3.00 per year; 30 cents per single number.

Contributions for publication in this journal, whether scientific papers or reports of County Secretaries, should be typewritten.

Address Journal of the Florida Medical Association, St. Augustine, Florida, or 201-202 St. James Building, Jacksonville, Fla.

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SHELTON HORSLEY, M. D., F. A. C. S., OUR GUEST.

The Association is indeed fortunate in having as its guest of honor, for the annual meeting in Orlando, Dr. J. Shelton Horsley, of Richmond, Virginia. To one so well-known in America, and particularly in the South, an introduction hardly seems necessary.

It has been in the field of surgery that Dr. Horsley has attained his prominence. His work on "the preservation of physiologic function, and the interpretation of the biologic processes that follow surgical operations," has done much to place surgery on a sound and sensible basis. The principles established by him in surgical drainage, i. e., the consideration of this process as a biologic one and not chiefly mechanical, deserve especial study. His excellent work in blood-vessel surgery is familiar to everyone interested in this subject. Persuing his investigations with reference to gastric function after operations for gastric and duodenal ulcer, he has evolved an operation, Horsley's pyloroplasty, which will undoubtedly help to solve the question as to the best type of operation which will deal with the pathology in question, and still preserve the physiologic function of the stomach. His numerous contributions to medical literature are always read with much interest and for clear, logical reading and study his "Operative Surgery" can always be perused with profit and pleasure.

It is with great pleasure that we will welcome Dr. Horsley to our meeting in Orlando.

THE FIFTY-FIRST ANNUAL MEETING OF THE FLORIDA MEDICAL ASSOCIATION.

The fifty-first annual meeting of the Florida Medical Association will convene in Orlando, May 13-14. Association headquarters will be maintained at the Angebilt Hotel.

The JOURNAL prints in another column the general program and that of the Scientific Assembly. It will need but a glance at this program to convince the members of the Association that their officers have been indefatigable in their efforts to arrange a meeting that should attract every member of the Association. Without casting any reflections on the efforts of preceding officers, the scientific program to be presented at this meeting is without doubt the most attractive that has ever been arranged in Florida. The es-

sayists have been carefully selected, every paper to be read will prove of interest not only to specialists that may be interested in some particular branch of medicine but of intense interest to every member of the Association—be he a specialist or general practitioner. Each paper should bring out valuable discussion and in contrast to discussions of papers at previous meetings will this year be made a matter of permanent record, as it has been arranged to have a medical stenographer who will report all discussions of papers together with the official transactions.

It will be noted by members that when they receive their official program—upon registration—that the Constitution and By-Laws of the Association appear printed in full. At a recent meeting of the Executive Committee, our Constitution and By-Laws received careful attention and scrutiny. It was noted that in many instances, sections are contained which have become obsolete. At the meeting of the House of Delegates, therefore, it is proposed to make such amendments as to give the Association a practical working Constitution and set of By-Laws.

The local committee of the Orange County Medical Society have announced the following committee which will have charge of the meeting, or that part of it, that properly comes under the function of the entertaining society:

Committee on Arrangements.

L. C. Ingram, *Chairman*

M. M. Andrews	G. H. Edwards
J. A. Ford	C. D. Christ
H. Johnson	T. A. Neal
Sylvan McElroy	J. S. McEwan
Meredith Mallory	W. H. Spires

J. R. Chappell

Committee for Physicians' Wives.

Mrs. G. S. Osincup, *Chairman.*

Mrs. H. N. Beardall	Mrs. R. R. Kime
Mrs. C. D. Christ	Mrs. G. H. Kleiser
Mrs. J. H. Chiles	Mrs. R. L. Miller
Mrs. E. F. Craney	Mrs. Meredith Mallory
Mrs. G. H. Edwards	Mrs. Sylvan McElroy
Mrs. J. A. Ford	Mrs. J. S. McEwan
Mrs. F. H. Harms	Mrs. T. A. Neal
Mrs. L. C. Ingram	Mrs. W. Osenbach

Mrs. J. A. Pines

Golf, rides, teas and theatre parties will be provided for the doctors' wives.

Headquarters and Registration

Angebilt Hotel

All meetings, banquets, dance and smoker.

Special rates at hotels as follows:

Angebilt Hotel—One in room, \$2.50; two in room, \$2.00 each.

Orange Court Hotel—One in room, \$4.00; two in room, \$3.00 each.

San Juan Hotel—One in room, \$3.00; two in room, \$2.50 each.

Write direct to hotel management for reservations.

It is believed that the Orlando meeting will prove to be the best meeting the Association has ever held and that in point of attendance it will exceed all previous meetings.

OUR ALLEGIANCE TO THE SOUTHERN MEDICAL ASSOCIATION.

In a recent communication from Mr. C. P. Loran, Secretary of the Southern Medical Association, he gives this information:

"We are very proud of our membership in Florida. Florida stands at the top in percentage of members of State medical associations who are members of the Southern. We had on November 1st, 344 members in Florida, this being 59 per cent of the members of the Florida State Medical Association as reported in the last A. M. A. Directory. The next highest percentage of members is Mississippi with 56 per cent, and Tennessee next with 52 per cent."

Our meeting in Orlando will afford our State another opportunity to increase this percentage and continue to be the Banner State of the Southern Medical Association. Let us see if we can't get every man in our State Association to enjoy the privilege of the Southern Medical Association and receive the *Southern Medical Journal*, a periodical which is second to none. Let the slogan be, "Join the Southern Medical Association."

MEDICAL GROUP PRACTICE.

Within the last one-and-one-half decades the practice of medicine has been completely revolutionized. This is seen upon all sides, and it impresses itself upon one whether he is willing to accept it or not. The new order of things has thrust itself upon us. This has been due largely to the scientific development in medicine and the rapid changes in human sociology and economics.

Medicine is becoming more and more an exact science and is keeping pace with the advancement of science in other human activities. It is no

longer possible for one brain to have such a comprehensive practical knowledge of all the branches of medicine that will permit that brain to make application to the patient of all the necessary knowledge, judgment and technical skill to make a proper diagnosis and to organize and execute proper treatment.

The practice of medicine is no longer legitimately conducted upon a purely personality basis. There was a time when a certain pleasing personality and a certain manner of dress and a certain style of hirsute adornment constituted the stock in trade of the average doctor. The new order of things contemplates, embraces and absolutely demands in the successful medical man many other qualities of a much higher order.

Medical group practice is upon us, and the signs of the times indicate that it has come to stay. It is very true that the manner of group organization has not up to this time been very well studied or very well formulated. The result of this has been that the mortality of clinical groups has been exceedingly high.

Dr. Mercur, of Pittsburg, in October, 1921, before a meeting at Chicago composed of medical men interested in the group practice of medicine, reported that he had investigated forty-five medical groups and that the mortality had been forty-three, leaving only two groups that had survived the arduous test of practical operation. In this report he entered into an analytical study of the causes of failure. This study resulted in the following enumeration of such causes: First, the fundamental ideals of the organization were not correct; second, lack of first-class men; third, lack of proper organization; fourth, the employment of voluntary workers; fifth, lack of co-operation.

The ideals of a group must be those same lofty altruistic ideals underlying the principles of the profession of medicine. The same altruistic ideals that should inspire the individual in the pursuit of the practice of medicine must pervade the whole atmosphere of the organized group in order to prevent the first cause of failure.

The lack of first-class men is largely due to improper judgment in the selection. This selection is often left to laymen who are absolutely incapable of passing such judgment. A man should be judged by the quality of the work he does. Good work should be the standard and good work can only be judged by his written records

of same. He should be given carte blanche as to the selection of his facilities and to the amount of time required for the accomplishment of good work. It is an absolute necessity to select first-class men.

It is important and pertinent, therefore, to formulate some plan whereby first-class men may be selected. What then are the characteristics of a good man? Following an idea put into practice by the United States Army during the World War, we may write down five characteristics of a good and suitable man for a group practice organization. These should be arranged in order of their value: First, character, which should be valued fifty per cent of a man's characteristic qualities; without character, which involves fundamental honesty and high ideals and proper bearing, no other quality will count. Second, a man must have good judgment; without a well-developed judgment no man in the practice of medicine can be a success from the standpoint of its true meaning. Third, we will place knowledge, without which he is a failure as an individual and as a medical group unit. Fourth, we would place personality. Without a proper sort of personality, which would invite pleasant reactions from those within the environment of his activities, his other qualities would fail. Fifth, and last, we would place technical skill. Briliancy of technical skill would be of no avail were not the technician possessed of the foregoing characteristics.

Proper organization is absolutely necessary to prevent this cause of death of the medical group. Organization involves many questions and presents as many difficulties. It means the final bringing together of the individuals of the group and placing of them in such relation to each other that the reactions upon each other shall be co-operative. Each individual unit should be carefully studied in order to determine exactly what position he will best fit into. In order to bring about idealistic co-operation which is necessary to the successful biological development of the clinical group, voluntary workers should never be employed. Reward is one of the great fundamental incentives that stimulate human activity to its highest type of efficiency. This is common basic philosophy discernible to anyone who has even superficially studied human nature. It is, therefore, necessary that the individual members of the clinical group be paid

for what he does, and his reward must be equal to that of any other member, considering the intrinsic value of his work, or the moth of dissatisfaction will enter his mind and the group will be a failure, as no chain is stronger than its weakest link.

Co-operation among the individual team workers is absolutely necessary, not only for the life and development of the group itself, but it is necessary for the advancement of the science of medicine and for the best interest of the sick, who seek the aid of the group. A minimum standard, having as its foundation a broad basis, should be laid down and absolutely lived up to. This does not mean, however, that a man should confine himself to a minimum standard alone, but he should be encouraged to use his initiative and attain purposes and results and ideals far beyond the minimum standard. There has not been and there cannot be laid down a set rule for group organization. The successful clinical group requires individual study and organizing ability to avoid the high mortality which has been shown in the only survey that has been made in this field of medicine.

THE FLORIDA RAILWAY SURGEONS' ASSOCIATION.

The annual meeting of the Florida Railway Surgeons' Association will convene in Orlando, Monday, May 12th, in the Convention Auditorium of the Angebilt Hotel.

Dr. William S. Manning announces the following Preliminary Scientific Program:

1. Trauma of the Female Pelvic Organs, T. M. Rivers, Kissimmee.
2. A Simple but Effective Dressing for Railway and Similar Injuries, H. E. Palmer, Tallahassee.
3. Traumatic Appendicitis, L. S. Oppenheimer, Tampa.
4. The Non-operative Treatment of Hemorrhoids, J. Halton, Sarasota.
5. The Treatment of an Occlusion of Stenson's Duct Following an Improper Treatment of Same, J. C. Nowling, Ft. Myers.
6. The Neurological Treatment of an Alleged Head Injury Incurred in Railway Accident, R. N. Green, Jacksonville.

ORLANDO—THE MEDICAL CENTER OF CENTRAL FLORIDA.

Orlando's development as the medical center of Central Florida covers little more than the time it took two of her own boys in knee trousers, shooting marbles on the clay streets, to grow into long trousers; and drive their cars with the caduceus on the radiator over those same

streets, now bricked. It is only eighteen years since one of the Orlando physicians, noted for his avoidrupois, began practising medicine on a bicycle; hiring a horse and buggy when he had a country call. In those days there seemed little more than the sense of the scent to lead the doctor over the woods' trails. One of them has a vivid recollection of a temperamental "one-lung" Cadillac that balked about fifteen miles from town. He started to ride home on a borrowed mule, only to have his hair raised by meeting a wild-cat, snarling stubbornly between the wagon ruts.

Church Home and Hospital.

From 1886 to 1896 Dr. R. L. Harris, now of Jacksonville, operated the Orange Belt Railroad Hospital at Oakland. "Professional nurses," he says, "were unknown in that neck of the woods, the cook doing most of the nursing." There was also a railroad hospital at Sanford, which was later merged into the present Atlantic Coast Line Hospital at Waycross, Georgia. St. Luke's Hospital, Jacksonville, was also established.

In the year 1887, Mr. H. W. Greetham, feeling that the sick and poor of Orlando should have better care, interested the various churches of the village to found and support a home and hospital. Three small houses, which could each have been bought for \$600.00, were available. The owner was offered cash or care the remainder of her life. She chose the care for payment, and upon her death it was estimated that the houses had cost \$4,800.00. One by one the churches, with the exception of the Episcopalian, discontinued their support of the enterprise, but Bishop Wm. Crane Gray said: "We will run if they all draw out." And so his church became solely responsible. One building after another was added until in the year 1916, when it was closed for lack of funds, it was valued at \$63,000.00.

The Church Home and Hospital ministered to such a pristine country, many amusing events make up its history. The story is told of a long, lank native who was being prepared for a varicocele operation. The preparation became so formidable to him, he got stage fright and bolted in his operating shirt after a few whiffs of ether. It was claimed that he made the trip home (about fifteen miles) in two hours; and never came back for his breeches, shoes, and No. 6 hat—all the clothes he possessed.

Charley Tiger, an Immoklee Indian, married a girl wife. She became very ill and at the sug-

gestion of the Episcopal Missionary to the Indians, he brought her to the Church Home and Hospital where she was treated for about six months and eventually recovered. The seventy-mile trip to Ft. Myers was made by ox team. From there she was brought to Orlando on a stretcher in the train. Patiently and devotedly he sat beside her through all her critical illness, but when her recovery was assured, his soul yearned to celebrate. A bottle of "fire-water" got results; and the stillness of the starry night was rent by a blood-curdling war-whoop. When he was accused of being drunk, he replied: "Indian not drunk. Indian *h-a-p-p-y!*"

It is less than fifteen years since the squaw had her seventy-mile ride in an ox cart. Today a privately owned Crane-Breed Winton Six ambulance, equipped with every most modern convenience, glides smoothly over the brick roads.

Dr. W. C. Person, the dean of Orange County physicians, attributes Orlando's development as a medical center to the Church Home and Hospital. It provided the facilities; capable doctors were here to make use of them; and the sick came where they could be healed. In its twenty-nine years it rendered efficient service. As Dr. Person says, it eventually became a hopelessly "septic shack"; but everything is comparative, and in its day it was just as vital and magnetic a part of Central Florida as the Orange General Hospital is today.

Private Hospitals.

All of the privately owned hospitals have been comparatively transitory and can be passed over briefly.

Dr. R. L. Harris, of Jacksonville, founded two of them. His own description of his experiment is so racy we shall let him speak for himself:

"The former Harris Sanatorium, of Orlando, now a part of the St. Charles Hotel, I built in 1903 and ran as a private institution until I came to Jacksonville in 1908. Ignorance of the difficulties of operating a hospital in a small town at that time was my only excuse for building it.

"In 1906 I founded the Tubercular Sanatorium which my wife named Camp Cohasset—Place of Pines—situated in an original pine forest bordering on three lakes, now known as the Florida Sanitarium and Hospital. The large number of tubercular patients coming to Florida at that time, who were a menace to the hotels and boarding houses, induced me to form a company to build and operate this Tubercular Hos-

pital. After operating this institution I soon realized that 75 per cent of all tubercular patients were indigent and that it was impossible to make it pay expenses, hence it was operated only a short while."

Two other private hospitals should be mentioned; the Orlando Sanitarium, built in 1910 and operated by Dr. C. D. Christ, and the McEwan Hospital, built in 1911 and operated by Dr. J. S. McEwan. Good roads, improved railroad facilities, and the ever increasing tourist population drew patronage from a surprisingly large area. Both hospitals were equipped for and took successful care of more surgery than any other institution in Central Florida had thus far. Indeed, their records are quite similar throughout.

When the Orange General Hospital was opened both men closed their private institutions and joined with other Orange County physicians in united support of the county institution. The value of concerted effort has been amply proved.

Orange County Home.

Orange County has long maintained a very creditable Home for those citizens, who through misfortune became dependent upon the county. In 1906 the old home was destroyed by fire and a new one was built. This contained the living quarters of the superintendent and his family as well as wards and rooms for the inmates of the home. Later more room was necessary and a separate cottage was built for the superintendent. During the past year, through the increase of population, it became necessary to erect an 18-bed hospital for the care of the medical cases at the home; and also for the convalescent surgical cases transferred from the Orange General Hospital wards.

Orange County Medical Society.

In the early days, of course, there was no medical society in Orange County. A few of the physicians were affiliated with the Hillsboro or Duval Associations. Various members of the profession recognizing the need of an organization in Orange County, Dr. J. S. McEwan, having been recently married, invited the group to a dinner in his new home. At this dinner, May 26, 1908, the Orange County Medical Society was formed. The President was Dr. J. D. Rush; Vice-President, Dr. Jerome Bruce, of Sanford; Secretary, Dr. J. S. McEwan; and Treasurer, Dr. C. D. Christ. The other charter members

were Drs. W. C. Person, W. Kilmer, Sylvan McElroy and George Porter, of Orlando, with Dr. King, of Sanford.

Later Seminole County, with Sanford as its county seat, was cut off from Orange County, but the Medical Society remained a unit; and meetings were held each month alternating between Orlando and Sanford.

Fellowship and interchange of ideas have been conspicuous results of the organization; but the physicians have also exerted their influence repeatedly for progressive and constructive health legislation in city, county and State. The annual banquets have been prominent in the year's schedule. In 1914 the Orange County Society entertained the Florida Medical Association. Evidently the occasion has left pleasant memories for now, just ten years later, the State medicos are returning to share our hospitality again.

They will find a bigger and more beautiful Orlando and a county society larger and stronger. From the nine charter members the society has now grown to forty-three with representatives from Apopka, Ocoee, Orlando, Osceola, Oviedo, Sanford, Winter Garden and Winter Park. As evidence that fellowship knows no boundary lines, three Kissimmee (Osceola County) men have applied for membership in the Orange County Association and will be accepted. Thus we see Orlando recognized as the medical focal point of Central Florida, emanating service and cordial relations in all directions.

Sanford.

Prominent in the affairs of the Orange County Medical Association is that portion of its membership practicing in Sanford. There are at present seven physicians in Sanford, all of whom are members of the Orange County Medical Association and whose interest in the Association has always been active.

Seminole County, of which Sanford is the county seat, was until 1913 a part of Orange County. Since its creation as Seminole County, both the county and Sanford have made wonderful progress in all lines of development. Originally founded in 1874 by General Henry S. Sanford, one-time minister to Belgium, Sanford is recognized as one of the important inland cities of the State. It would take too long to enumerate the various developments as they occurred, but the Sanford of today is a city mod-

ern in every sense of the word. Its present population based on a recent survey is 8,500. It has twenty-five miles of paved streets, electric lights, gas and water, and excellent sanitation. It is the largest single celery shipping center in the world. During the season of 1922-23 approximately 4,900 cars of this product received their initial icing at Sanford. Sanford's new public library has recently been completed and opened to the public. The library building and furnishings cost approximately \$15,000, and the books, some four thousand volumes, were donated by the Sanford Woman's Club.

Sanford is located on Lake Monroe, headwaters of navigation on the St. Johns River, and holds the same position to Jacksonville on the St. Johns as Albany does to New York on the Hudson. It has the city manager form of government which is the most modern and efficient that has yet been devised. That which is most gratifying to those who are working for a greater Sanford is the new spirit of progress which permeates its citizens. Perhaps no city in the State can boast the same co-ordination that exists between the people and the city officials. Important municipal projects which are now being developed are: Contract for municipal water, light and gas plants, which when completed will represent an expenditure of \$845,000; \$25,000 for an athletic field to be used as spring-training quarters for one of the major league teams; \$40,000 for an additional nine holes to the golf course, conceded to be one of the sportiest in Florida; \$80,000 for sewerage extension; \$67,000 for the construction of a yacht basin, and for the beautification of the lake front with a wide boulevard \$50,000.

The city has lately acquired, through the death of Mrs. Mabel L. Fernald, her magnificent home, which sometime prior to her death was converted into a hospital which is modern in every respect. The Fernald-Laughton Memorial Hospital, as this hospital has been named, accommodates twenty beds and extensive improvements, consisting of a new operating room, anæsthetic room, and additional wards have been recently added.

The physicians of Sanford are obviously elated at the remarkable growth of the city and are assisting professionally and otherwise to further this development. In addition to being members of the associations organized for the profession, they are represented in Sanford's



Orange General Hospital

prominent civic organizations such as the Chamber of Commerce, Rotary and Kiwanis Clubs.

Orange General Hospital, Orlando, Florida.

The Orange General Hospital, located at the City of Orlando, Orange County, Florida, was founded by the citizens of Orange County and incorporated in the year 1916 under the name of the Orange County Hospital Association. It was opened for the admission of patients in November, 1918, and ministers to the sick and injured of all denominations irrespective of race or creed.

It is not operated for profit and the maximum charges made are never more than actual cost. During 1923 a total of 172 charity cases were cared for and, having no endowment, this work is entirely dependent on voluntary contributions.

This hospital has a capacity of 106 beds divided as follows: Private rooms, 40, six of which are reserved for obstetrical cases; male ward, 18 beds; female ward, 18 beds; children's ward, 6 beds; obstetrical ward, 6 beds; colored ward, 18 beds.

The operating rooms on the top floor of the hospital are equipped so that two majors, one minor and one delivery, may be going on at the same time. The X-ray department alongside the operating rooms is equipped with Stereo-Radiographic and Fluoroscopic tables, also a portable bedside unit. The 200,000-volt generator for deep therapy is located in the basement to avoid disturbing the patients. The hydrotherapy and

electrotherapy recently installed have the latest equipment in their line. The hospital is steam heated throughout and operates its own laundry.

It has a recognized training school for nurses and the Nurses' Home is located in the hospital grounds, detached from the hospital buildings. The directress of nurses and the supervisors as well as the nurses in training reside in the Nurses' Home.

The following physicians and surgeons constitute the medical staff of the hospital: M. M. Andrews, H. M. Beardall, C. D. Christ, J. H. Chiles, E. T. Craney, G. H. Edwards, J. A. Ford, H. W. Gwynn, F. H. Harms, L. C. Ingram, H. Johnson, A. H. Kleiser, R. L. Miller, M. Mallory, J. S. McEwan, S. McElroy, T. A. Neal, G. S. Ossincup, J. A. Pines, W. H. Spires, and members of the Orange County Medical Society are at all times privileged to have patients in the hospital under their care. The affairs of the hospital are managed by the superintendent. He is under the control of the Board of Governors who are elected by vote and hold office for three years. Mrs. Jas. L. Giles, of Orlando, is president of the Board of Governors, who are: H. W. Barr, H. L. Beeman, W. Edwards, Mrs. J. Ferris, D. E. Fishback, Mrs. L. Gentile, Jas. L. Giles, Mrs. H. G. List, W. E. Martin, DeWitt Miller, W. R. O'Neal, M. O. Overstreet, L. L. Payne, Miss M. Rand, A. Schultz, Mrs. J. W. Simmons, L. W. Tilden, N. P. Yowell and Mrs. N. P. Yowell.



Views of Florida Sanitarium.

The Florida Sanitarium, Orlando, Florida.

This institution was established in 1908. It is one of a sisterhood of similar institutions located in strategic centers over the world, conducted and directed by the Seventh Day Adventist Church, in the interests of biological living. We believe and teach that our bodies are the temples of God and that we should reverence, revere and obey the physiological laws governing our lives in every respect; that health is the fruitage of obedience to these laws and disease is the result of their violation. We, therefore, teach and stress the influence of proper diet, sunshine, exercise, rest, sleep, cleanliness and a clear conscience in maintaining health and in the restoring of the sick to health.

That these purposes may be most readily achieved, the institution maintains a Sanitarium unit and a Hospital unit, consisting altogether of

16 buildings, well equipped and furnished for their respective fields of service, located two and one-half miles north of Orlando on the Dixie Highway. The campus comprises 52 acres overlooking two beautiful deep-water lakes and surrounded with orange groves and virgin pine forests.

Founded in the interests of physiotherapy as the most potent and rational means of treating the sick, it maintains a modern equipment for properly administering hydrotherapy, electrotherapy and heliotherapy in their various forms and combinations. Approved medication is used when found necessary. A well-equipped laboratory for all clinical, metabolic and dietetic tests is maintained. The X-ray plant is efficient and complete, including a 210 k. v. deep therapy machine for treating cancer. A carefully supervised dietary, consisting of fresh green vegetables, fruits, nuts, cereals, milk, and eggs is maintained. Meat, tea and coffee are considered unscientific, and harmful combinations of food are not used.

Beginning in very humble proportions, the institution has rapidly grown during the past ten years to its present capacity, position and influence throughout the Southland.

It maintains a most excellent three-year nurses' training course. The school is accredited.

Thoroughly qualified physicians and surgeons are in constant attendance, together with a competent corps of nurses who give efficient and conscientious service night and day.

A quiet, homelike, Christian atmosphere pervades the institution and its clientele is drawn not alone from our beautiful Florida but from all our neighbors east of the Mississippi River.

*Fernald-Laughton Memorial Hospital,
Sanford, Florida.*

No city can afford to be without an institution for the care of the sick in its midst. Every city that lays any claim to a place in the progress of modern civilization finds its essential to establish and maintain a hospital. Schools, churches and hospitals go hand in hand with the real progress of a city, and no one of these can be neglected without serious consequences.

For many years Sanford dreamed of the day when something or someone would make possible the establishment of a hospital within her limits. A number of years ago a beginning in this direction was made by a few loyal and far-

seeing citizens. Some money and several lots were donated by generous residents, and for several years this money and these lots lay dormant awaiting more prosperous times when good fortune would make the dreams come true.

It was not, however, until August of 1919 that these good people began to see the realization of their dreams, when Mrs. Mabel Laughton Fernald, widow of the lamented Hon. George H. Fernald, one of Sanford's most prominent and successful business men, made a proposition to the city that proved to be the fulfillment of the long-cherished hopes.

Mrs. Fernald, who recently was called to her reward, offered to deed to the City of Sanford her magnificent home on Oak Avenue to be used as a hospital, provided that, during her life, the city would pay her the sum of two thousand dollars per year, as interest on the property, valued at thirty-thousand dollars. Mrs. Fernald, in addition to this, promised to donate to the hospital to help pay current expenses the sum of five hundred dollars per year for the remainder of her life. At her death the property passed into the hands of the city without encumbrance of any nature. The city now owns the property, consisting of the main hospital building and a smaller home for nurses and a garage.

Since the city has come into possession of this fine property the lots and money previously belonging to the Sanford Hospital Association have been legally transferred to the new organization, the title of which is the Fernald-Laughton Memorial Hospital Association. The lots have been sold and the proceeds used in the erection of an annex to the main hospital building, the annex being a two-story brick structure, and providing accommodations for fourteen patients.

The Fernald-Laughton Memorial Hospital Association conducts the affairs of the institution through its executive committee, the chairman of which is Hon. A. P. Connelly, and under the active supervision and financial direction of the president of the association, T. W. Lawton, superintendent of education for the county.

During the four years of its existence not less than a thousand patients have been treated, fully one-half of these having had surgical operations performed for their relief.

Receipts from patients for the four years have been about forty-five thousand dollars, while the cost of operating the institution has exceeded fifty-six thousand dollars. The deficit has been

made up by appropriations made by the county and city together with membership dues in the association and many generous gifts from individuals and local institutions.

No "charity ward" is maintained in this hospital, although this is being advocated by a number of interested citizens. On the other hand, no sufferer has yet been denied entrance into the institution on account of penury, hence the deficit is large for an institution of 24 beds. When the account of any unfortunate patient is not paid by the city or county or some order or interested individual, the loss is absorbed eventually by membership dues and voluntary contributions, so that the hospital has not at any time been greatly financially embarrassed, although there has never been any considerable bank balance to its credit.

Sanford boasts of as high class of physicians as any city in the State, and many sufferers come to our hospital in order to be under the care of our excellent physicians. These physicians serve as an advisory board of the hospital, and a given number of them are elected each year as the "hospital staff." However, any accredited doctor in the city is permitted to practice in the institution. Nor should we fail to give much credit to the most excellent head nurse, Miss Mary Landgraf, who, with her competent corps of nurses, strives to lessen the pain of her suffering patients. And these patients are always glad to talk of the many courtesies and kindnesses extended them while a patient under Miss Landgraf's care. The hospital is indeed fortunate in having a lady of the character and ability of Miss Landgraf, as it was at the very opening four years ago when we secured Miss Myrtis Palmer, now Mrs. L. I. Frazier, to take charge. Miss Palmer, like Miss Landgraf, was a lady of excellent qualities and made hosts of friends for the institution.

In closing it may be well to state that, aside from the nurses, janitors and cook, no one connected with the institution receives any remuneration. The executive committee, the advisory board, the secretary and the president, all serve for the love of Sanford and humanity—and all feel bounteously compensated by the consciousness of having done something to relieve their suffering fellowmen and add to the happiness of the world.

The Seminole Sanitarium, Maitland, Florida.

The Seminole Sanitarium is a private institution of twenty-five beds, located at Maitland,

Florida, about eight miles from Orlando on the Dixie Highway, with offices in the State Bank Building in Orlando. This is an institution for the diagnosis and treatment of mental disorders, and was established about a year ago, with Dr. W. H. Spiers, formerly chief physician of the Florida State Hospital at Chattahoochee, Florida, as medical director, and Drs. C. D. Christ and J. R. Chappell, of Orlando, as surgical consultants.

The plant consists of two separate buildings at present surrounded by forty-two acres of land. The main building looks out upon three beautiful lakes, Faith, Hope and Charity. Directly in the rear is Lake Seminole, another very picturesque lake. The grounds are well shaded with large oak trees and a more beautiful spot could not have been found for an institution of this kind.

The scope of the work of the Sanitarium is the diagnosis and treatment of nervous and mental disorders, alcoholism and drug habituation. It offers an ideal place for rest and upbuilding under careful medical supervision.

The institution is small and offers the few patients that we are able to take care of, at present, individual attention. The necessity for such an institution in Florida has long been recognized by the medical profession, and with that in view we have started on a small scale, but by continually improving and enlarging we hope to have one of the largest institutions in the State of Florida.

It is a recognized fact that all nervous and mental disorders should have access to as much outdoor life as possible and there is no other climate in the world that affords as much as Florida the year round.

THE CITY BEAUTIFUL.

A stranger coming into Orlando, whether by train or automobile, gets first the impression of beauty. Beauty in the score of lakes around which the city has been built; beauty in the homes which surround them, with wealth of flowers and spacious grounds; beauty in the thousands of trees which give shade and distinction to the City Beautiful.

There is beauty in the commonplace and industrial side of Orlando, in the fifty miles of brick-paved streets, arched with intertwining branches of oaks and magnolias; beauty written across the face of its metropolitan hotels and palatial apartment houses, and in its sky-scraping bank buildings. Orlando's beauty attracts and holds, its climate year round can scarcely be excelled; its people are cultured and friendly, creating a combination which makes one want to stay.

There is a satisfaction in being among things of beauty; among friendly, cultured people; a satisfaction which brings out the best in one and produces the de-

sire to be a part of and a creator of the beautiful, besides the pleasure of sharing in the benefits of the fulfillment. If one so desired, it would be difficult to deface the beauty of Orlando, so zealously do its citizens protect its natural charms. Civic pride urges the construction of homes and buildings in harmony with the surroundings. A tree is never destroyed that can be preserved. They are found right in the heart of the city, monuments to Orlando's love of nature and beautiful things. The surface Orlando is all that one could desire in natural attractiveness, and well deserves its name, The City Beautiful.



Orlando is set in the heart of a natural woodland of oaks and pines on gently sloping ground, and everywhere is fragrance and beauty of blossoming things.

Here might Browning have written:

*"I find earth not gray but rosy,
Heaven not grim but fair of hue;
Do I stoop, I pluck a posy,
Do I stand and stare, all's blue."*

In Orlando one is never more than ten minutes' walk from a lake. Lake Eola, nearest the center of the city, seems the most intimate and friendly, perhaps, because it was there that the City Beautiful had its beginning. Perhaps where now thousands of persons gather for band concerts, for the open forum, for Christmas carols and glittering, gift-laden tree, for water carnival with its fireworks, music, decorated boats—all that goes with the changing seasons—in long-ago days council fires glowed and Red Men held conclave.

Around Lake Eola nature has written much that is beautiful. Low beds of petunias, thousands massed in gorgeous living color; roses which bloom the whole year through; delicate mimosa with its dainty flowering; royal poinciana, like a Paisley mantle, hibiscus whose beautiful, deep blossoms of pink or scarlet live but to give gladness for one day.

Tennis courts with merry young people at play; children happy with swings and sand piles in their make-believe world; elderly folk keenly enjoying from comfortable seats, oak-shaded, the activities going on about them.

On the lake white swans, sunlight glistening on spreading wings, a boat under an overhanging tree; palms and flowers and fleecy clouds repeated so distinctly in the lake one wonders where the shadow begins. And at night when the stars come close and the moonlight floods the

sky, and light greens of silent leaves are etched against the darker greens, swans now motionless under shelter of overhanging banks, there are canoes following the shore line, dip of paddle in rhythm with mandolin and youthful voices, and a hundred white lights encircling the boulevard make a hundred silver moons in the lake.

Toward the west is little Lake Dot, wondrously beautiful mirror, emerald-set, reflecting attractive bungalows facing the daily miracle of sunrise.

Lake Concord, which throws back its reflection of the handsome Amherst, and which is the scene of much pleasurable activity; Lake Ivanhoe, Lake Cherokee and Park Lake, with their green parkways and effective lighting and handsome homes; Lake Lorna Doone—each has its charm.

Silver-blue surface of Lake Lucerne is impressed vividly on memories of all who know its beauty; the curves of the Dixie Highway there, tall pines, moss-wreathed oaks, avenues almost hidden by wealth of green, handsome lawns surrounding stately homes which wealth and culture have made most harmonious. And at night when the parkway is lighted, and Lucerne Circle becomes a drive of unforgettable charm one glimpses through hospitably open curtains, handsome drawing-rooms, families and friends assembled, and there are bits of opera, of Beethoven, Schubert, Mendelssohn, De Bussy—one sees a bit of home life rare in cities.

The City Beautiful—the phrase clings because it describes Orlando.

A City of Distinction.

Orlando has the hall mark of distinction—that intangible something which in cities as in persons, attracts worth-while people. One would know without being told that Orlando people are cultivated people, with love for the natural things of life; who bring into the present all the good the past has had in books, and music, and who project into the future a wider vision and greater opportunities for those who will make up the City Beautiful in coming years.

It is this mark of distinction which is attracting many of our friends, who can live here as they are accustomed to at home. People who do not look upon money as an end in itself, but having always had wealth, regard it as a fortunate circumstance, without giving it a prominence out of focus with life.

Churches.

One expects churches, but one does not often find, in a city of 15,000, a score of denominations nearly all with large, handsome, modern edifices, concrete evidences of the welcome of a worth-while city.

Orlando's churches grow with the growth of the city, and keep the national average of one to a thousand persons. The church buildings are all of handsome designs, and as they are nearly all clustered in the center of the city which has grown up around them, so are they centers of activity for the welfare of the community, irrespective of denomination. They include St. Luke's Cathedral (Episcopal), First Methodist Church, South, First Baptist Church, First Presbyterian Church, St. James Catholic Church, Unitarian Church, First Church of Christ, Scientist, Seventh Day Adventist, First Christian Church, First Lutheran Church, Christian and Missionary Alliance.

A site has been purchased for a handsome new Catholic church and parochial school, and a new Baptist church has been made necessary by the rapid growth of the city.

There are many societies within the churches which emphasize the social side of life as well as unusually large Sunday schools, and Missionary Societies.

Women's Clubs

The Rosalind Club, essentially a social organization, has a most charming home in which to entertain, holds high place in the city's many organizations, and fulfills its part of the obligations.

The Sorosis has for many years been not only a literary club, but an active force in projects for the city's betterment and its handsome club-house is used by many organizations and groups to do charitable things in a pleasurable way.

The Business and Professional Women's Club is an active organization at present in leased quarters but with a substantial building fund, which maintains a restaurant and rest room, sponsors the Chautauqua, sews for the Day Nursery and plans for the little folks' Christmas, while getting together for friendly observance of birthdays and holidays, and acting as composite hostess for many women otherwise strangers in the city.

There is a Pan-Hellenic Society of both men and women.

The Eclectic Club is one of Orlando's leading musical organizations, and is affiliated with the National Federation of Music Clubs. It helped to start the Orlando Symphony Orchestra, which means much in the city's cultural advancement.

Standing in a class by itself is the Pythian Band of Orlando, recently organized, and filling an important place in the musical entertainment of the city.

Civic Organizations

Orlando has many clubs and fraternal organizations. They stand for things worth while, and parent organiza-



tions cannot help taking pride in the local branches which so worthily represent them. The Rotary Club is made up of men who worthily represent the spirit of "service above self" in the business for which they stand. Rotary is sponsoring the course of Business Administration at Rollins College; raising an endowment fund for scholarships to worthy students at the Florida State University, and taking the leading part in boys' work in Orlando.

The Kiwanis Club more than exemplifies its motto, "We build," having made possible the comfortable home of the Orlando Day Nursery and is now engaged in promoting an auditorium for Orlando which will seat at least three thousand persons, a project which will add much to Orlando's present attractiveness for the large conventions which are forcing Orlando into the position of the Convention City of Florida.

The Lions Club, with an active membership of busy, successful men, is a leading factor in the progress of Orlando, and in addition to helping many worthy causes, is especially interested in the Boy Scout Movement, doing much for the local troops.

Orlando's numerous fraternal organizations are active influences in the civic life. The Masonic Order includes Chapter, Council, and Commandery, as well as the Orlando Shrine Club.

The Benevolent and Protective Order of Elks own an attractive home. The Knights of Pythias have their own Castle Hall, which houses also the D. O. K. K.'s and Pythian Sisters. There are also lodges of Odd Fellows, Rebekahs, Woodmen of the World, Modern Woodmen, Red Men, Royal Neighbors, Loyal Order of Moose, Knights of Columbus, and other fraternities.

Patriotic and war-time organizations include the American Legion, which owns its own home on the banks of Lake Ivanhoe; the American Legion Auxiliary; the Daughters of the American Revolution; the United Daughters of the Confederacy; United Confederate Veterans; the Grand Army of the Republic; and Woman's Relief Corps; the Spanish War Veterans.

The local chapter of the American Red Cross and the Orlando Associated Charities are helpful assets of the community.

Hospitals

Orlando has in the Orange General Hospital an institution which is an important asset to the city, with a splendid medical and nursing staff, nurses' home and training school. The hospital is operated under a most liberal policy, is ever ready to respond to the needs of charity and has an active auxiliary of earnest women who give the hospital and its needs their personal oversight and care.

The Florida Sanitarium is an institution caring for

about 1,000 persons a year, who come to Florida in search of health. It is located about three miles from the center of Orlando and has, besides its main administration buildings, some fifteen or more cottages and half a hundred acres of land. It gives the famous Battle Creek system of treatments.

Theatres

Orlando has six theatres, with latest releases in silent drama, and also many splendid theatrical productions, dramatic and musical comedies.

The Beacham Theatre, one of the finest in the South, represents an investment close to \$200,000.00, has a seating capacity of twelve hundred and fills its place in the city's life, being the scene of the grand opera program, Keith Vaudeville, the musical comedies and legitimate plays, the annual Elks' Minstrels and American Legion Minstrels and all traveling shows, besides the pictures on first release. The Phillips, another imposing theatre, devoted exclusively to motion pictures, does credit to the city in the beauty of the theatre and the programs shown. The Grand Theatre, and the American draw well-filled houses all the year and help to lighten the burden of the others in supplying the demand of the theatre-going public. Two motion-picture houses devoted to the colored population do much to entertain the colored folks to whom Orlando gives much attention in providing comfortable quarters, sanitary environment, and lucrative employment as servants and laborers.

The Albertson Public Library

Orlando has in the Albertson Public Library a quality of literature and a classic building for its housing, of which a city many times its size could justly be proud.

The building is Greek-Doric in architecture, harmonious in every line, and complete in every detail, a material asset to Orlando and worthy the City Beautiful. It suggests in itself the uplifting purpose for which libraries stand. It has been constructed to meet the needs of the city for years to come, having stack rooms for 100,000 volumes. As time goes on it will serve as the Central Library for the city, and branches will be established as needed. There is at the beginning a branch in their section for the use of colored people, and for this purpose duplicate books are set aside and new reference books purchased exclusively for their use.

The library is known as the Albertson Public Library and it was built to meet the conditions of a most generous gift, of Captain Charles S. Albertson of Waverly, New York, who gave to Orlando his private library, conservatively estimated in money value upwards of a hundred thousand dollars, and equalling the cost of the building. It is not only a miscellaneous library but a very com-



prehensive one, and has long been known all over the eastern part of the country for its many valuable and rare books and its most unusual genealogical and research department. From many states people have traveled far to consult it, and undoubtedly many persons will come to Orlando because of the opportunity it offers for study and research. The books on Genealogical Research alone are a library in themselves.

Hotels

Considering the size of Orlando, its fifty hotels and boarding houses offer the visitor every convenience which one could have in any metropolitan city, and at a price below that usually asked for equal service and appointments. The visitor in Orlando can find exactly what he wishes in the way of rooms, food and service, and at the price he wants to pay.

The new nine-story unit of the San Juan Hotel is a building in which Orlando takes possessive pride. The San Juan has been here for thirty years, and its history is interwoven with the progress of the city. The new unit, built in 1922, with its handsome lobby, unusually attractive mezzanine and beautiful ball-room, attracts the admiration of all visitors. Its rooms are commodious, elegantly appointed, and it is under a management so courteous and attentive as to thoroughly satisfy the most exacting of guests. The San Juan Coffee Room, in connection with the hotel, offers a service and cuisine equal to that of any metropolitan hotel. The San Juan still keeps its position in the front rank of convention hotels, and has made special provision in the new unit for large gatherings and conventions for which Orlando is advantageously located.

In the Angebilt Hotel, Orlando has a million-dollar hostelry which would be a credit to any city anywhere, under exceptional good management, and its music, bridge teas and formal dinner dances have given it a place in the community life which only a metropolitan house could fill. It meets the requirements of permanent residents, commercial men, the most exacting of winter visitors, and in no way do their arrangements conflict.

Among the strictly tourist hotels is the Wyoming, recently enlarged to care for an ever-increasing tourist patronage.

The Lucerne Hotel, located near Lake Lucerne, has for many years had an established clientele of discriminating persons, and its guests, returning year after year, are long-season visitors in Orlando because of the comfort they find in their temporary home at the Lucerne.

The St. Charles, another of Orlando's tourist hotels, is located right in the heart of the business district, and combines in its service, appointments, and location, features which bring its patrons back year after year.

Bonnie Villa, overlooking beautiful Lake Eola, is a handsome new hotel, harmonious in design, complete in appointments, excellently managed, and filling its place in the city's life. It is a considerable addition to the hotel accommodations, appealing especially to families.

Apartment Hotels

Orlando is proud of its apartment buildings and hotels. The Amherst, located on Lake Concord, is one of the most perfectly appointed apartment hotels to be found anywhere. Everything is furnished with the exception of ice and gas, and the social life of the house is one of the delights of Orlando's social set.

Jefferson Court, an apartment hotel, is located on the edge of the business district, only a minute's walk to the very center of the city, and offers every service desired by the most fastidious guest. Its large lawns are a feature and enjoyed yearly by an ever-increasing clientele of winter guests.

Perhaps the most pretentious and most complete apartment hotel in Florida today is the Orange Court Apartments, situated on North Orange Avenue in an exclusive residential district.

This new acquisition to Orlando's most modern structures, costing close to a million dollars, offers to patrons every service known to the hotel business. The Orange Court Apartments were built to supply the requirements of Orlando visitors who desire palatial surroundings and the entertainment that one expects in the most complete metropolitan hotels.

The Country Club

The Country Club is close at hand with 18 tricky holes that par at seventy, grass greens and rolling fairways, water hazards, and a most perfectly planned club-house. Located only 1½ miles from the center of the business district and quickly accessible over brick roads, the Country Club offers every facility for recreation, clear-water bathing, daily luncheons, dinner parties and semi-weekly entertainments, constituting the rendezvous of the social set. The club-house is most commodious, its wide screened porches overlooking, from a central location, several attractive fairways, through a beautifully shaded woodland of oaks and pines. Eighteen beautifully planned fairways stretch along an undulating course, around clearwater lakes, a water hazard, and through pleasant woods which form a striking background and an added attraction to the pastime.

A new bathing pavilion and tennis courts have been recently added to the many attractive features of the Orlando Country Club.

"Dubsdread" is the significant and fitting name of the new stag course of 18 holes which offers particular advantages to men who come for hunting and fishing and golf in the winter time. It is said by experts to be planned for one of the most difficult links in the South.

Sports

Orlando is a city possessed of good sportsmen. It has league baseball, the Orlando Bulldogs, its pennant-winning aggregation, being supported entirely from the city's baseball enthusiasts. A new athletic field and baseball park equal to any in the South shows the enthusiasm with which all athletic enterprises are supported, the new field bearing the name of Tinker, after the popular shortstop of the famous Chicago Cub machine, Joseph B. Tinker, who has made Orlando his home. During the spring training season the Cincinnati Reds and other major league teams take advantage of the splendid baseball plant at Orlando and its wonderful climate for conditioning their players.

The hunting season is especially attractive; with Orlando as a central point, it is possible to drive over the splendid brick roads of the county in a few minutes to camps and hunting grounds where deer, bear, quail, wild turkey and much other game abound. The fishermen will find a real paradise around Orlando, and at Lake Apopka, twelve miles distant, is the third largest freshwater lake in the States, where many species of freshwater denizens will test the skill of the most experienced fisherman. From Orlando one can reach the Gulf or Atlantic in a few hours for deep-sea fishing and be at home at evening after a pleasant day's jaunt. It is an ideal spot for the sportsman, and many equally enthusiastic in the sport will be ready to make your stay a pleasant one.

Banks

The prosperity of the city is reflected in its nine million dollars of deposits in the five banks, the debits to individual accounts exceeding \$85,000,000.00 annually. The State Bank of Orlando and Trust Company and the Orlando Bank and Trust Company each have new ten-story buildings to meet their growing needs, providing handsomely appointed offices for business and professional men who require larger and better quarters. The Bank of Orange and Trust Company, a member of the Federal Reserve System, has its splendid home in the Angebilt, and the Church Street Bank occupies its own building on the West Side. The First National Bank, in

its strategic position on Orange Avenue, still finds itself cramped for space regardless of extensive improvements to its building, and having acquired a ninety-nine-year lease of a most valuable corner will undoubtedly have one of the finest buildings in the city there when its extensive plans are carried out.

With very few exceptions local capital is building the Greater Orlando. Its development has resulted from the confidence of its own people in its future. It has come from within its own citizenship, and rather than being the result of any one or number of big enterprises, has been a gradual, solid growth, to the point where Orlando is recognized throughout Florida as a leader in every line of commercial as well as tourist activity.

Post office receipts have practically doubled since 1920, advancing from \$72,000 in 1920 to \$125,000 in 1923, and showing a twenty-five per cent increase for the present year. The enrollment in public schools jumped from 1,500 in 1920 to 3,700 in 1923, with an estimated increase of 1,000 pupils during the present school year. The valuation of school properties has advanced with the construction of additional buildings from \$400,000 in 1920 to \$1,400,000 in 1923, and two additional schools, now under construction, will run the total to \$1,750,000 when completed.

Public Utilities

Water, light, gas and ice are presupposed in every city of today; but few cities of 15,000 population are favored with utilities equal to those enjoyed by Orlando. Pure, soft water is seldom found, and in this particular Orlando is most fortunate. It has the purest water in Florida, void of all disagreeable tastes and odors, and analysing 99 per cent in purity. The waterworks plant is new and capable of supplying a city three times the present size of Orlando, provision being made for additional units to be built to its present very complete plant. This is equally true of the electric properties which have been designed to meet the needs of a city

of forty thousand, ample space having been provided in the construction to take care of additional units as required by the speedy growth of the city. The utilities are under the direction of a commission consisting of the foremost business and financial men of Orlando, entirely removed from political control, and functioning at a high degree of efficiency. Orlando's public utilities are looked upon as the standard by which others in Florida are judged.

The tremendous amount of citrus fruit shipped from Orlando in refrigerated cars calls for the manufacture of clean, pure ice in abundance, and Orlando is favored in this respect by three ice plants with local delivery, the volume of ice produced giving Orlando exceedingly good ice at a low cost.

A Convention Center

No other city in Florida combines the advantages which Orlando possesses as a convention city. Its central location makes Orlando easy of access from all parts of the state by train or motor, and its train schedules are especially well-timed for trips into the city from points outside of Florida. The convenience of a lay-over sleeper on the early morning trains, and the spotting of sleepers at Orlando early in the evening for the late trains, makes Orlando a convenient center for business meetings, and it is being recognized by all sorts of associations as an ideal city for their yearly meetings.

Heart of the Citrus Industry

Difficult it is to realize that Orlando is the heart and pulse of the citrus industry, Florida's largest productive industry; that within this city of 15,000 are situated the headquarters of the citrus agencies which either own outright or control the shipment of nearly 75 per cent of the total citrus crop of Florida. Startling indeed is the statement that the telegraphic messages pertaining to the citrus industry alone, sent from Orlando, run in cost



approximately \$100,000 yearly, placing the offices of the Postal and Western Union in their class at the top as banner offices in their districts.

Not all of the citrus fruit shipped from Orlando is grown in its immediate territory, some being shipped here for repacking in the huge packing plants which are both industry and educational in themselves, but the combined shipments of county-raised and repacked fruit places Orlando as the largest individual citrus-fruit shipping and distributing point in the State of Florida.

Florida's Fortune Told

You ask to know your future, Fair Florida? You look too happy to need the cheer most seekers wish when they come to me. But sit here where the sun shines upon you and as you look into the crystal make a wish from your heart. I will tell you whether it will be given you, and what I see in the crystal for you.

You have wished? It is well, for with the wishing comes the purpose. We shall see. We shall see.

Strife there has been about you, and suitors many who have desired you. Men of dark skin, and eyes smouldering with jealous fire, romance and cruelty in their history, bade you wear their colors and speak their flowery tongues.

'Twas but for a little time, then there came the light-hued men of colder climes, blue eyed, fair haired, with love of home and of peaceful trade mingled with their love for adventure, and for a time you wore their colors. Then strife, again, and the dark-haired races conquered, and for a space there were four tongues spoken, but destiny ruled that you should become a part of a family of states, speaking the speech of your forty-odd sisters, sharing with them your joys and through your beauty and wealth making all the family proud.

Guard your beauty jealously, Fair Florida, lest suitors, false of tongue and with fair scheming take from you your inheritance. Jewels of untold value are your lakes—emerald, topaz, sapphire, turquoise; they are your dowry to pass on to your children. Let not their value be lessened by unworthy settings. Let them reflect only the best.

Fertile fields are yours, Florida, kissed by the radiant sun, caressed by gentle winds, cooled by refreshing showers—they will bring you fruits and foods in abundance for yourself and for your sisters. Bright flowers and joyous birds are yours, color and fragrance and song are in every breeze that passes over you, and they will keep you always young, always smiling, always lovable.

Age? We speak not of age in the crystal. Only of the spirit, which always was, and always shall be. You speak of age, because your oaks spread out and gray moss gathers? Speak rather of the bright green leaves always renewing before the old ones drop off; of the wonderful perfume and beauty of the orange blossoms that come before the golden fruit is gathered from the tree, earnest of its next year's bearing; of succession of crops in your cultivated soil; of virgin timber in your yet uncut acres; of the sponges, weird products of your sea gardens; of the fish that teem in your lakes and seas; of the restful green of your sloping hills, growing things in your fertile valleys. I see ships on the salt waters of ocean and gulf which wash the two coasts with which you alone of all the states are blessed; I see shining ribbons of steel binding your cities together; I see blue lagoons with many pleasure craft, floating winter homes of men of vast fortunes; perchance they carry the rulers of our nation, who find surcease from care in life-renewing, life-prolonging Florida; I see pleasant pursuits on your green turf—flying white balls and swift stroke of firm hands on metal-bound sticks; I see flash of oar and dip of paddle on your lakes, and hear murmurs of contentment, elsewhere becoming rare in these days when people are paying penalties for a thoughtless past; I see accumulated gold in your banks and prosperity within your boundaries.

Ask men of mathematics to tell you of the money that lies under your surface in phosphates and useful minerals; ask them to compute the wealth in your trees when transmuted into turpentine and resin; ask them to measure the agricultural wealth that is yours today and estimate its expansion in the years to come; ask them to tell you how much in dollars, each year, the industries which you have attracted bring to you.

But think not of dollars alone, Fair Florida. They will come to you in uncounted millions. Your sister states will take money from their banks and put into yours; their people will sell their houses and lands and buy and build in yours; their men of vision will see opportunities that will create new avenues of wealth; their children and children's children will fill your schools and be your future citizens.

Fast-growing cities are springing up within your boundaries everywhere—they are but the beginning of your growth in material things. Money you will never lack, Florida. Was that what you wished?

No?

That you might keep your vision. You have wished well, for in that are all the things worth while—love and protection of all that is natural and fine; joy as that of the birds in mere living; contentment in the sure knowledge that there is for you and yours enough and to spare of all needful things. Remember also, that inasmuch as you have been blessed far beyond all other states in the nation, that sharing is your privilege, and that the more you give the more you will have. Look once more in the crystal. I see written there what the philosopher said, "The only gift is a portion of thyself Therefore the poet brings his poem; the shepherd his lamb; the farmer, corn; the miner a gem; the sailor, coral and shells; the painter, his picture; the girl a handkerchief of her own sewing."

The crystal darkens—but across it I see a gleam—your wish will be granted. You will keep your vision, Florida.

ORANGE COUNTY.

Orange County has an area of 1,250 square miles. Its population in 1890 was 12,584. Owing to the effects of the great freeze in 1894-95 it was reduced to 11,314 in 1900 and by 1910 it had regained all losses with an enumeration of 19,107.

Without question, Orange County is one of the richest in soil, in climate, and its wealth of energetic citizens.

The soils of Orange County are varied, rich and adapted to an immense variety of fruits and vegetables. All the citrus varieties, pineapple, guavas, Japanese persimmons, peaches, pears, grapes and strawberries are among the crops thriving here.

While Orange County has had a tremendous growth and development that has not been surpassed by any county of like size in the South, its progress has been well-rounded and on the highest plane of real building.

While it is true that a large portion of this building has been done in the county seat, Orlando, yet every section of the county has made

advancement noted in the rural sections of the county.

Orange County has 500,000 acres of raw, uncleared land, plenty of room for all who want to come and grow with a growing county.

Orange County is the great "Inland Empire," is not an empire built by a few wealthy people, who want palatial homes for a few months in the year; but it is an empire founded by thousands of home-loving people of moderate circumstances, who love its climate, its soil, and its opportunities. Everywhere you turn you will find comfortable homes, fine farms and splendid groves, great banks, prosperous stores and attractive communities. People have come from all parts of America to work side by side in a splendid spirit of co-operation and enthusiastic boasting to make this the greatest county in the State.

Orange County is in the exact geographical center of Florida and midway between the Atlantic Ocean and the Gulf of Mexico, giving it a mild and delightful climate. Its 1,500 freshwater lakes afford an excellent frost protection for grove and garden, and on the warmest mid-summer days cool the refreshing breezes. The green hills are covered with stately, fine, beautiful oak and tropical palmetto, or bedecked in the deep rich green and bright gold of the orange, grapefruit and tangerine. The section near Tangerine, Zellwood, Plymouth and Apopka is one of the most beautiful hill and lake regions in a beautiful State.

Orange County is the largest shipping center for citrus fruits in Florida, all but one of the great marketing agencies having their State headquarters in this county. Last season 915,000 boxes of oranges, grapefruit and tangerines raised in Orange County were packed and shipped from one packing house, bringing more than \$2,250,000.00 into this county for that crop alone.

In addition to that, nearly 1,000,000 boxes of citrus fruit raised in other counties were packed and shipped from Orange County packing houses. Nearly one-seventh of the entire crop of citrus fruit shipped out of Florida was packed and shipped from Orange County. This county has nearly 24,000 acres of groves and more than 3,000 additional being set this year. It is the home of the Temple orange tree which has furnished the budwood for the Temple orange trees of Florida, the "\$10.00-a-box fruit."

Not only citrus fruits are raised in Orange County; the largest producers of bananas in Florida are in the Pine Castle section, (it is a great producing section for melons and vegetables, the cucumber crop alone brings more than a million dollars a year into Orange County); and the lettuce and tomatoes from this section are always at a premium in every market in the country because of the superior product and packing for which Orange County is famous.

When the present building program of Orange County is completed, this will be the premier good-roads county of Florida. The 563 miles of existent good roads include 57 miles of brick road and 506 miles of improved, graded and sand-clay roads; 100 additional miles are included in the recent bond issue for \$2,350,000 for hard-surfaced roads. This county is most fortunate in having two of the best engineers in the South in charge of the construction and maintenance of the 665 miles of good roads within its borders, Major Charles A. Browne and Engineer A. L. Wright.

Orange County offers many attractions to the tourist as well as to the settler.

The fishing, boating, and swimming in the lakes, golf every month of the year, the best music of the country, and amusements of the finest sort abound. As the Hon. W. A. MacKenzie, member of the Florida Legislature from a neighboring county, has said of "Orange—the name lingers with one like a note from an anthem of the gods. It lights up the gloomy shadows of the North and makes men yearn for you and yours. As it falls from admiring lips it brings forth visions of the beautiful; it tempts the ice-bound Northerners with the gold of clustered fruit, the emerald of the graceful, bending bough; it cools his palate with the sparkled juiciness of that gilded globule from which it is so fitly named; it stamps before the brain the panorama of pine-clad templed hills, mantled with their millions of hues of green, of turquoise lakes set like jewels in a bosom of magnificent promise; of roads of velvet; of trucking plots waiting for the touch of inspiration and effort to make them feed the world; of fruit, flower and fragrance woven all by the hand of destiny into a woof of enchantment to cover the needs of a waiting people—a waiting people who but pause to hear your welcome to come and be convinced."

UNITED STATES CIVIL SERVICE EXAMINATION. MEDICAL INTERNE (PSYCHIATRIC).

SAINT ELIZABETH'S HOSPITAL

*Applications will be Rated as Received Until
June 30, 1924*

The United States Civil Service Commission announces an open competitive examination for medical interne (psychiatric). Vacancies in Saint Elizabeth's Hospital, Washington, D. C., at \$1,200 a year and maintenance (plus "bonus," see below), and in positions requiring similar qualifications, at this or higher or lower salaries, will be filled from this examination, unless it is found in the interest of the service to fill any vacancy by reinstatement, transfer, or promotion.

BONUS—Appointees whose services are satisfactory may be allowed the increase granted by Congress of \$20 a month.

TENURE OF OFFICE AND PROMOTION—The positions are tenable for one year. During the year a postgraduate course in mental and neurological diagnostic methods is given, a written examination is held, and promotions to the next grade, junior assistant physician, may be made of internes who pass the examination and have completed the probationary period of six months. Beyond this there is regular advancement for employees whose services are satisfactory. Saint Elizabeth's Hospital has over 4,000 patients and about 1,300 employees to care for. In addition to the general medical practice offered, the scientific opportunities in neurology and psychiatry are unsurpassed.

CITIZENSHIP AND SEX—All citizens of the United States who meet the requirements, both men and women, may enter this examination; appointing officers, however, have the legal right to specify the sex desired in requesting certification of eligibles.

On account of the needs of the service, papers will be rated as received and certification made as the needs of the service require. In the absence of further notice, applications for this examination will be received by the Secretary of the Fourth Civil Service District, Washington, D. C., until the hour of closing business on June 30, 1924. If sufficient eligibles are obtained, the receipt of applications may be closed before that date, of which due notice will be given.

SUBJECTS AND WEIGHTS—Competitors will not be required to report for examination at any place, but will be rated on the following subjects, which will have the relative weights indicated:

Subjects	Weights
1. General education	30
2. Technical training and experience	70
Total	100

BASIS OF RATINGS—The ratings will be based upon competitors' sworn statements in their applications and upon corroborative evidence.

PREREQUISITE REQUIREMENT—Applicants must show that they are graduates of a recognized medical college or that they are senior students at such institution, and expect to graduate within eight months from the date of making oath to the application. The names of senior students will not be certified for appointment until they have furnished proof of actual graduation.

Applicants must not have been graduated prior to the year 1920 unless they have been continuously engaged in hospital, laboratory, or research work along the lines of neurology or psychiatry since graduation, which fact must be specifically shown in the application.

Unmarried eligibles are preferred.

AGE—Applicants must not have reached their seventieth birthday on the date of making oath to the application. In view of the retirement act, should the appointing officer so request, certification will not be made of eligibles who have reached their fifty-fifth birthday, except in the case of persons entitled to preference because of military or naval service, who, however, must not have reached the retirement age.

RETIREMENT—Classified employees who have reached the retirement age and have served fifteen years are entitled to retirement with an annuity. The retirement age for railway postal clerks is 62 years, for mechanics and post office clerks and carriers 65 years, and for others 70 years. A deduction of 2½ per cent is made from the monthly salary to provide for this annuity, which will be returned to persons leaving the service before retirement with 4 per cent interest, compounded annually.

PHOTOGRAPHS—Applicants must submit with their applications their unmounted photographs, taken within two years, with their names written thereon. Proofs or group photographs will not be accepted. Photographs will not be returned to applicants.

PHYSICAL EXAMINATION OF APPOINTEES—In view of the benefits granted employees under employees' compensation and retirement legislation, persons appointed may be given a physical examination by a physician in the Federal service before entering on duty.

APPLICATIONS—Applicants should at once apply for Forms 1312 and 2398, stating the title of the examination desired, to the Secretary of the Fourth Civil Service District, 1723 F Street N. W., Washington, D. C., or to the Secretary of the United States Civil Service Board, Customhouse, Boston, Mass.; New York, N. Y.; New Orleans, La.; Post Office, Philadelphia, Pa.; Atlanta, Ga.; Cincinnati, Ohio; Chicago, Ill.; St. Paul, Minn.; Seattle, Wash.; San Francisco, Calif.; Denver, Colo.; or old Customhouse, St. Louis, Mo.

Applications should be properly executed, including the medical certificate but excluding the vouchers and county officer's certificate, and filed with the Secretary of the Fourth Civil Service District, Washington, D. C., without delay.

The exact title of the examination, as given at the head of this announcement, should be stated in the application form.

PREFERENCE—Applicants entitled to preference because of military or naval service should attach to their applications their original discharge, or a photostat or certified copy thereof, or their official record of service. If, because of disability, the applicant is entitled to a pension under authorization of the Pension Bureau, or to compensation or training under the Veterans' Bureau, he should also submit his pension certificate, or a certified copy thereof, or a certificate from the Veterans' Bureau showing that he is entitled to compensation or training by that Bureau. Such papers will be returned to the applicant.

Issued February 14, 1924.

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J. B. POUND, *President*

Hotel Seminole, Jacksonville, Fla.
CHAS. B. GRINER, *Manager*

WHAT IS S. M. A. ?

S. M. A. is an adaptation to breast milk which resembles breast milk both physically and chemically.

S. M. A. in addition to giving excellent nutritional results in most cases, also prevents nutritional disturbances such as rickets and spasmophilia.

S. M. A. requires no modification or change for normal infants. As the infant grows older the quantity is merely increased.

S. M. A. requires only the addition of boiled water to prepare.

(Orange juice, of course, should be given the infant fed on S. M. A., just as it is the present practice to give it to breast-fed infants.)

Why was S. M. A. developed?

Because there is a real need for an adaptation to breast milk which will give satisfactory nutritional results in the great majority of cases, which includes the preventive factors, and which is, at

the same time, so simple to prepare that the physician can rely on the mother to follow his directions accurately.

How is it possible to feed S. M. A. to infants from birth to twelve months of age without modification or change?

The answer to this question sounds the keynote of the success which thousands of physicians are having with S. M. A. It is not necessary to modify S. M. A. for *the same reason that it is not necessary to modify breast milk*:—for S. M. A. resembles breast milk not only in its protein, carbohydrate and salt content, but also *in the character of the fat*. Since the very young infant can tolerate the fat, as well as the other essential constituents in S. M. A., it is possible to give this food in *the same strength*, to normal infants *from birth to twelve months of age*.

As the infant grows older, therefore, it is only necessary to increase the *amount* of S. M. A.

Samples and literature to physicians on request.



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THE JOURNAL

— OF THE —

Florida Medical Association

OWNED AND PUBLISHED BY THE FLORIDA MEDICAL ASSOCIATION

VOLUME X
No. 12

St. Augustine and Jacksonville, Fla., June, 1924

Yearly Subscription, \$3.00
Single Copy, 30c

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Entered as second-class matter under Act of Congress of March 3, 1879, at the Postoffice at St. Augustine, Florida, October 23, 1914

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MEAD JOHNSON & COMPANY, Evansville, Indiana

THE JOURNAL OF THE FLORIDA MEDICAL ASSOCIATION

PUBLISHED MONTHLY

Volume X St. Augustine and Jacksonville, Florida, June, 1924 Number 12

PRESIDENT'S ADDRESS.*

H. MARSHALL TAYLOR, M. D., F. A. C. S.,
Jacksonville, Fla.

Members of the Florida Medical Association,
Ladies and Gentlemen:

First I wish to thank you for the honor of being chosen as your President.

It gives me great pleasure today to welcome you to this our Fifty-First Annual Meeting, and when I see the faces of so many of you men who have worked untiringly for years for the welfare of our Association I am more than impressed with the fact that its good deeds have been due to your enthusiasm and perseverance which now seem to be increased and not diminished by time. I also wish to take this opportunity of saying a word of welcome to the young members who have recently joined our Association. You are fresh from the halls of learning, and it is upon you that the future welfare of our Association depends. You are today the life and energy of our organization. Without the addition of new members, the Association would cease to develop and fail in its purpose. We need you, and your enthusiasm can only increase that of the men who have labored toward the upbuilding of this Association. To the new members, again I say, welcome, welcome, thrice welcome!

The custom for the President of a Medical Society to deliver an address is an ancient one, and through these years our records show that this custom has given the President considerable latitude in the selection of his subject. Some of my predecessors have dealt with matters of scientific value, others with medical education, while by others the glories of The Florida Medical Association have been sung and its future heralded. Unless one has a message to bring, your present Executive feels that the time of the Association at this meeting can be much better utilized in the consideration of the interesting and instructive papers to be heard and many important questions

which at this session should come to the attention of our business meeting.

Permit me, therefore, to call your attention to a few matters that seem to me to be of sufficient interest to engage your serious consideration. In my remarks I trust that none of my hearers will interpret them as dogmatic statements or in the vein of criticism but only in the spirit that all of us are in perfect harmony in looking to the betterment of our Association and organized medicine in the State of Florida.

Statistics.

The first thing I would refer to is the relative size of our membership in proportion to our State's population. Everybody in the United States, with the exception of the Florida Medical Association, seems to be cognizant of the fact that Florida is increasing at a tremendous rate in population. The membership of the Florida Medical Association has not increased in proportion to this influx of citizens which has brought its commensurate number of physicians with them.

During the past year I have studied the statistics of the Florida Medical Association given out by the American Medical Association as published in the Medical Directory. Feeling that every member of our Association should be conversant with them, I submit some of them to you:

Southern States.

Chart showing (1) number of physicians in these States as per 1923 A. M. A. Directory; (2) number who are members of the State Medical Associations; (3) per cent who are members of State Associations.

	No. Doctors 1923 A. M. A. Dir.	In State Med. Assn. 1923 A. M. A. Dir.	Per Cent Mem. State Assn.
STATE.	(1)	(2)	(3)
Virginia	2,503	1,959	78%
West Virginia	1,751	1,447	83%
Alabama	2,213	1,665	72%
North Carolina	2,226	1,551	70%
Missouri	5,827	3,555	61%
Oklahoma	2,600	1,567	61%
Kentucky	3,155	1,858	59%
Texas	6,094	3,516	58%
Georgia	3,274	1,860	57%
Louisiana	2,058	1,121	55%
Maryland	2,349	1,264	54%
South Carolina	1,368	729	53%

*Delivered before the Fifty-First Annual Meeting of the Florida Medical Association, held at Orlando, May 13, 14, 1924.

Arkansas	2,303	1,194	52%
Mississippi	1,792	848	48%
Tennessee	3,228	1,440	45%
Florida	1,348	586	44%
	<u>44,189</u>	<u>26,160</u>	<u>Av. 59%</u>

I must admit on perusal of same that I was shocked to find that there was no State south of the Mason and Dixon Line which had so small a percentage of the physicians residing within its borders in their State Association as has Florida. When we have heard from all sides the reports from the statisticians of the tremendous development of Florida in the past few years and then see this small increase in our membership, it is full time for us to ask ourselves why this is true. First, let us inquire as to what has become of the 335 men who were licensed by our examining boards from 1918 to 1923 to practice medicine in Florida. Surely, an overwhelming percentage of these men are ethical and eligible and are splendid timber for our organization.

The Florida Medical Association Statistics, as printed in the Directory of the American Medical Association for the years 1918 and 1923:

	Population of Florida	Membership of Fla. Medical Assn.
1918	870,802	568
1923	968,470	586

This table shows a gain in population of 97,668. This table shows a gain in membership of the Florida Medical Association of 18.

This is definite evidence that our progress is not in keeping with our State's growth, and unless we improve this percentage of membership, The Florida Medical Association's lowly statistics will be published throughout the nation and in the end will reflect unfavorably upon the fair name of our Commonwealth. Already, this inactivity of ours has gone abroad and our Association is being depicted as an example of a non-progressive body. Dr. W. H. Davis, Director of the Bureau of Vital Statistics of the Georgia State Board of Health, in an article entitled "Who's Where?", which will be published in an early issue of the *Southern Medical Journal*, says, "There must be a reason why the State Association of Alabama includes 71.9 per cent of the profession, while the State Association of Florida has only 43.4 per cent. Conditions are apparently the same in these neighboring States, yet in each 100 physicians, Alabama includes 28 more in the State Association than does Florida."

Gentlemen, the situation is critical—in the per-

centage column of organized medicine of the Southern States we are at the bottom; and yet, the rapid development and growth of other institutions of our State are astounding the world. We should analyze this situation and get down to basic curative principles.

In our lethargy, our Association has taken no notice of the 14 new counties which have been formed and the 7 new Judicial Districts.

CIRCUIT COURTS OF FLORIDA.

First Judicial Circuit.—Okaloosa (x), Walton, Santa Rosa, Escambia.

Second Judicial Circuit.—Liberty, Franklin, Gadsden, Jefferson, Wakulla, Leon.

Third Judicial Circuit.—Hamilton, Dixie (x), Taylor, Madison, Columbia, Suwannee, LaFayette.

Fourth Judicial Circuit.—Clay, Nassau, Duval, St. Johns.

Fifth Judicial Circuit.—Citrus, Hernando, Marion.

Sixth Judicial Circuit.—Pasco, Pinellas.

Seventh Judicial Circuit.—Brevard, Volusia, Seminole (x).

Eighth Judicial Circuit.—Putnam, Levy, Baker, Bradford, Union (x), Flagler (x), Alachua.

Ninth Judicial Circuit.—Holmes, Washington, Bay (x).

Tenth Judicial Circuit.—Polk.

Eleventh Judicial Circuit.—Monroe, Dade.

Twelfth Judicial Circuit.—Highlands (x), Glades (x), Hardee (x), Charlotte (x), Hendry (x), Lee, Collier (x), DeSoto.

Thirteenth Judicial Circuit.—Hillsborough.

Fourteenth Judicial Circuit.—Jackson, Calhoun.

Fifteenth Judicial Circuit.—Palm Beach, Broward (x), St. Lucie, Okeechobee (x).

Sixteenth Judicial Circuit.—Sumter, Lake.

Seventeenth Judicial Circuit.—Osceola, Orange.

Eighteenth Judicial Circuit.—Manatee, Sarasota.

Technically speaking, there has been no provision in our Association for a Councillor for the following counties: Okaloosa, Dixie, Seminole, Union, Flagler, Bay, Highlands, Glades, Hardee, Charlotte, Hendry, Collier, Broward, Okeechobee and Sarasota. In this matter our Association has been in a deep sleep that rivals that of Rip Van Winkle and it is now time for us to open our eyes and see where we are. West Vir-

ginia 83 per cent, Virginia 78 per cent, Alabama 72 per cent, and Florida, last and least, 44 per cent,—the smallest percentage of any Southern State.

In our Association, the precedent has been handed down that a Councillor was more or less an inactive officer and that little was expected of him, and yet, in a recent bulletin of the American Medical Association, the statement was made that the Councillor was the most important officer of the State Association.

In viewing this lack of growth of our Association, many questions might well be asked and, on first thought, let us not say that it is the fault of the Presidents, Secretaries or Councillors. Have we not, as an organization, been asleep to this important activity of our Association? Have we, as an organization, been awake to the activity which should have been ours in acquiring new members? Have we, as an organization, either expected or demanded of our officers this important work? Again, let us ask ourselves, Have we made our scientific programs of sufficient value, or the JOURNAL OF THE FLORIDA MEDICAL ASSOCIATION of such interest as would invite the attention of the perhaps 56 per cent of the physicians of our State who have either not wished to affiliate with us or else were not sufficiently influenced by our good work to conduct themselves in a way that would make them eligible to membership?

This year, according to the figures of our Secretary, Dr. Henson, there have been added to our membership roll the names of eighty. This is not the gain which we should make, and yet it represents more than four times the total gain in membership from 1918 to 1923.

It would be well if everyone of us would leave this meeting with the determination to convince every ethical physician in Florida, that for him to be true to his Hippocratic oath and his calling in medicine, he must affiliate himself with his County, State and National Society, and assume his true obligations toward the betterment of Public Health and Medical Legislation.

The problem of increasing our membership is one that every man in our Association should be vitally interested in. As individuals, we should not feel that this is only a duty for the President, Secretary or the Councillors, for if every one of us during the ensuing year will interest himself in bringing every ethical and eligible man, residing within the borders of the State, into our Association, the good work of The Florida Medi-

cal Association will increase in ratio to the growth of membership and there will be better protection of our lay population against charlatanism and the fake diploma menace. With the proper organization at this meeting for a membership campaign, our Association in 1925 should have a membership of 1,000 men. Unless we do this, in the opinion of your President, we will be recreant to our duty. I urge you to give this your most serious consideration.

The Journal.

It is not my purpose to review the work of every department of the Association, but I cannot refrain from referring to our periodical—THE JOURNAL OF THE FLORIDA MEDICAL ASSOCIATION. I want to express my appreciation of the hearty cooperation that many of our members have given our Editorial Staff during the past few months. As your President, it has been my happy privilege to have closely associated myself with the Editorial Staff. It has given me a greater pleasure than I could ever have anticipated. Some of our members have said, "the JOURNAL has shown some progress." I hope this is true, and if it is, let this just be the beginning, for with loftier aspirations and with 100 per cent cooperation from our past Presidents, our Collaborators and our entire membership, we can produce a medical periodical which would stand out preeminently. We have the men in our organization capable of doing this; we have a wealth of material—but have we the desire?—the determination? If not, let's get it, or else abolish the JOURNAL.

Heretofore, the publication of the JOURNAL has been forced into the hands of one or a few men, but it should not be so, for each member of this Association should consider himself an integral part of the Journal Staff and endeavor to make the publication the mirror of his thoughts. The backbone of any medical publication is the quality and quantity of original articles published therein. Most of us are prone to lose sight of the wealth of knowledge that accrues from a careful review of the literature that is manifestly necessary in the writing of a medical essay. Carefully prepared bibliographies are glaringly absent from our pages, and after all, one can and does judge a medical paper's character by its bibliography. It should never be incumbent on the Journal Staff to seek material for our periodical, and yet, throughout the past year—during my close association with them—I have learned of the strenuous efforts that must be made in

order to fill its pages. Many of our members last year suggested a personal news section. As an evidence of the lack of cooperation forthcoming, I will state that the following letter went out to thirty members of our Association:

"Dear Doctor Doe:

"We are trying to get some medical news or items of personal interest from each County Society for publication in the JOURNAL OF THE FLORIDA MEDICAL ASSOCIATION. Please let me have some of the above from your section in order that we can publish them in our next JOURNAL.

"I know you will not put this in a pigeon hole nor forget it, but will send them at once and help us out. Haven't you an original article that you would like to give us?"

What was the result? Only one man out of the thirty showed the JOURNAL that he was sufficiently interested to even reply to the communication. Gentlemen, if the JOURNAL is to continue, and be worth while, the Editorial Staff must have your cooperation; and it should have it, for it is your periodical and its success is dependent on your efforts. Mason Knox says:

"It ain't the individual
Nor the army as a whole,
But the everlastin' team work
Of every bloomin' soul."

Scientific Program.

The work of our committee on the Scientific Program may be of interest to the Association. This year our committee has endeavored to reduce the number of papers on our program. There is nothing in our By-Laws that gave them this authority, and at the risk of unpopularity some fifteen men were advised, after a request from them for the privilege of presenting a paper, that the program was complete. This, they could not understand. Much embarrassment would be saved our future scientific committees and more valuable programs could be consummated if some ruling were made as to this. In my work with this committee, I am of the opinion if our Association continues to confine itself to a two days' session that the number of papers should certainly not exceed twenty in number. The Scientific Committee agrees with me that it would also be well to incorporate in our By-Laws a provision that no name appear on the program two years in succession. This would work to the end that other talent would be developed in our State Association, and this should certainly be

one of the motives of our Association. I am pleased to report that 20 per cent of the essayists appearing on our program this year have never contributed to our scientific assembly before.

Lye Legislation.

I wish to report at this time the success of the activities of the committee which was appointed at our last annual meeting to present before our Legislature the necessity of some laws regulating the sale of caustic acid, caustic alkalies and preparations thereof, including preparations ordinarily described as or called "lye", and providing penalties for the violation thereof.

On May 21st House Bill No. 218, which carries the necessary legislation, was introduced by the Honorable Amos Lewis and was promptly passed by both branches of the Legislature, signed by Governor Hardee, and became a law on January 1, 1924.

It is a great pleasure at this time to express our appreciation and deep indebtedness to our Governor and to both Houses of our Legislature for their willingness to make of this emergency legislation.

The fact that the bill went through the House of Representatives and the Senate in two days is an evidence of the magnanimity of our legislators toward humanitarian objects.

As Chairman of that Committee, consisting of Drs. R. H. McGinnis and L. S. Oppenheimer, I wish to acknowledge with gratitude the courtesy and assistance with which all of our committee's efforts were received. The work of Dr. Ralph Greene in accompanying the chairman of that committee to the State capitol and laboring untiringly in arousing the interest, sympathy and support of our legislators is deserving of the highest commendation. Thanks for wise counsel and earnest support are due to the law firm of Cooper, Cooper and Osborne, the Honorable Amos Lewis, the Honorable A. Y. Milam and Senator J. Turner Butler.

The support of the medical profession was magnanimous and the support of the various chambers of commerce, women's clubs and child welfare organizations throughout the State is gratefully acknowledged.

Bogus Doctor.

One of the purposes of the Florida Medical Association, as laid down in our Constitution, is the enactment and enforcement of just medical laws. This problem is now before us, and it is time that our Association should fulfill its duty

toward our lay population in protecting them from this octopus which is known as the Bogus Doctor. The laity in Connecticut have taken this matter in their hands and much of this evil has been corrected. In Florida the laity will be equally interested when they learn of the true state of affairs. The public only needs information and guidance from the ethical practitioners of medicine to institute proceedings as did the lay population of Connecticut. In this connection, the following letter which was addressed to the President of one of our county societies is of interest:

"Dear Doctor:

"As the leader of the ethical fraternity of this county I am writing you this letter to request your aid in ridding this community, also the entire State of Florida, of all the Bogus Doctors licensed by the Eclectic Examining Board, such men who bought and were licensed by said board without the formality of an examination. These men never saw the inside of a medical college and have received no medical education whatever. The public suffers from their ignorance and incompetence and many deaths result from their lack of knowledge. The regular board of medical examiners is empowered by law to revoke the certificates of license that have been obtained by fraudulent means. If you can interest the Board of Examiners in this matter you will do the public a great service.

"A petition from the several County Medical Societies probably would obtain results. These Bogus Doctors are well known to the regular profession in every county. They could give the board the names of the guilty parties. It is generally known that certain men who have not been absent from the city over six weeks have hung out their shingles and proclaimed themselves legal practitioners of medicine. Every one knows that a certain druggist who has the reputation of being the most notorious criminal abortionist south of the 31st parallel, never was missed from the streets and on obtaining a fake diploma and license is now engaged in his nefarious trade. Besides nearly all of criminal abortion work is done by this gang and they represent 90 per cent of the violators of the Anti-Narcotic Law. We, the people, appeal to those in authority to mitigate this great evil.

"Respectfully yours,"

The Bogus Doctor alleging to be practicing without a license has come most prominently into public notice within the past year. There is a rumor which is persistently repeated, that at the present time there are more than 150 improperly licensed physicians practicing in Florida. This has caused the public at large to wonder why more energetic steps have not been taken to seek out the guilty and bring them before the bar of justice for punishment if found guilty and before the State Board of Medical Examiners for revocation of licenses if credentials are found to be fraudulent.

The function of the State Board of Medical Examiners is not one of prosecutory power. The physicians of the State appear to believe that it is the duty of the Medical Examining Board to actively prosecute violators of the Medical Practice Act. The law in effect states, "It shall be the duty of the Secretary and Treasurer of the State Board of Medical Examiners to aid the Prosecuting Attorney of the State in the prosecution of persons charged with violation of its provisions."

Physicians generally should recognize that the duty of the Medical Examining Board is to examine and license those who are properly qualified to practice medicine, keeping a complete record of those qualified, which record furnishes the State with first-hand information when it undertakes to prosecute an illegal practitioner.

In my opinion, The Florida Medical Association should memorialize the Legislature, or appeal to the Governor and Attorney General, for the necessary provisions whereby it may become mandatory for County and State Prosecuting Attorneys to carefully scrutinize the record of every doctor and compare the same with the official records of the State Board of Medical Examiners which are available.

It is clearly the duty of each County Society to bring the necessary influence to bear upon the local prosecuting officials, and it is the duty of the State Medical Association to vigorously present its desires to the Governor and the Attorney General and, if necessary, to the Legislature of Florida.

It is the duty of the doctors everywhere to emphatically evaluate the type of Medical Practice being indulged in, in his given community. An evasion as to the value of some fanciful, cultish system is, in effect, a tacit endorsement of same.

Revision of Constitution and By-Laws.

I desire to also call your attention to other matters which should be given consideration by our House of Delegates. First, our Constitution and By-Laws are sadly in need of revision. Many of the chapters or sections are archaic, while others are either useless or meaningless. I would solicit your careful consideration of these during the meeting of the House of Delegates. Secondly, it is the opinion of your President that our Association should conduct its business affairs in a business-like way. What other organization handling as many thousand dollars does not have its books submitted annually to a certified public accountant? Any other practice is out of the ordinary; and I want to submit for your consideration that such a clause should be put into our By-Laws, that the books of the Florida Medical Association should be put into the hands of a certified public accountant at the end of each fiscal year and that the result in full be incorporated in our annual reports and records. This cannot in any way be construed as a reflection upon any officer, for it is a practice instituted in every line of business for the protection of all parties against error.

Opportunities in Florida.

This is not an inopportune time for our Association to give some consideration to the brilliant opportunities which are ours in this much-talked-of State. The physician residing in Florida who desires to do research work does not necessarily have to hie away to some foreign clinic or laboratory. There are many medical problems here beckoning to us. My fondest hope this year was that some one on our Scientific Program would report and give the world some facts solving the unknown problems of Dengue. Such an opportunity was recently accorded the men of our State to study this disease, of which so little is known. Some physician in some part of the world, in time, will do this. What an honor this would be if one of our membership would startle the scientific world with this. How it would redound to his credit and be a source of

pride to us all! Some of the greatest things in medical science would never have been known had it not been for medical imagination—who knows but within this hall today some of our men are working out some of the secrets of medicine which will raise them to the eminence of such discoverers as Pasteur, Lister, Ross, Marion Sims or Chevalier Jackson.

There is perhaps no section of this great country over which the Stars and Stripes wave which offers the inspiration that does Florida. In addition to our year-round residents, we are the host of many hundreds of thousands of visitors. If we fulfill our duty as hosts and as physicians, we should render our guests the same expert medical and surgical service that they can obtain at home—whether it be New York, Chicago, Boston, Philadelphia or Rochester. As an Association, we should encourage every idea of advance and think only in terms of progress. How often do we see the names of the members of the Florida Medical Association in the national societies or taking active part in their programs? We are all proud of our State; we love this organization; we have the deepest appreciation of its value to us; but, gentlemen, at the same time, we should all be ambitious for it.

After all is said and done, the activities and accomplishments of our organization are but the reflections of the thoughts, the lives and the souls of our members. Therefore, let us all show that altruism which has caused the poets to glorify Medicine; and with it all, let us keep ourselves in perfect harmony and concord, like the strings of a well-tuned harp. And then, when the final roll is called, to which every one of us must answer, such a sentiment as the following which was inspired by the life of the South's immortal Grady might be appropriately sung:

"The grandest thing next to the radiance that flows from the Almighty's throne, is the light of a noble life shining in benediction upon the destinies of men and finding its home in the bosom of the everlasting God."*

*Eulogy by John Temple Graves, December 26, 1889.

MR. MEMBER!

After reading this address will you not do your share to help bring about a fulfilment of the reforms required in interests of Organized Medicine?

PROCEEDINGS

of the

FIFTY-FIRST ANNUAL MEETING

of the

FLORIDA MEDICAL ASSOCIATION

HELD AT ORLANDO, FLORIDA

May 13th and 14th, 1924

The Fifty-First Annual Meeting of the Florida Medical Association was called to order in the auditorium of the Angebilt Hotel, Orlando, by Doctor L. C. Ingram, Chairman of the local Committee on Arrangements, at 9. a. m., May 13, 1924. After the invocation, delivered by the Reverend C. S. Long, D. D., Doctor Ingram made a number of announcements relating to the entertainment features connected with the meeting. He then turned the gavel over to Doctor H. Marshall Taylor, of Jacksonville, President of the Association, who delivered his Presidential Address.*

Following Doctor Taylor's address, Doctor Love moved that a committee on the President's address be appointed, the committee to consist of two members, with instructions to report their recommendations to the House of Delegates.

The motion was duly seconded and carried.

The chair appointed Doctors R. H. McGinnis and J. V. Freeman.

Upon motion duly seconded and carried the General Association then adjourned and Doctor James D. Love, of Jacksonville, Chairman of the Committee on Scientific Work, assumed the Chair.

SCIENTIFIC ASSEMBLY.

The Chair made a brief statement relating to the manner in which the scientific meetings would be conducted. The following papers were read and discussed:

"A Review of a Series of Splenectomy Cases", John S. Helms, Tampa.

"Upper Urinary Studies: (1) The Pyelo-

ureterogram", Lantern Slides; Robert B. McIver, Jacksonville.

The Chair recognized Doctor John S. Helms, of Tampa, who stated:

"Mr. Chairman, and Gentlemen of the Florida Medical Association, it gives me especial pleasure to present our honor guest at this, the annual meeting of our Association. Our guest is an international authority on Medicine and Surgery and one of the outstanding figures in the progress of Medical and Surgical Science of America.

"It gives me great pleasure to introduce to you Dr. J. Sheldon Horsley, the Master Surgeon, Author, and Editor, of Richmond, Virginia."

Doctor Horsley:

"It has given me great pleasure to accept the kind invitation from the Association and to prepare this paper.

"I wish to congratulate you upon the selection of your President, Doctor Taylor, whose constructive address is fully in keeping with the fine work he has been doing, especially his activities in securing legislation to prevent lye poisoning. This splendid work is being done all over the country, and undoubtedly will be the cause of saving much suffering and death in hundreds of infants and little children."

Dr. Horsley then delivered a paper entitled "Surgery of the Stomach," illustrated with lantern slides. Upon completion of Dr. Horsley's paper, Doctor H. Marshall Taylor moved that the Association give Doctor Horsley a rising vote of thanks for the presentation of his paper. The motion was duly seconded and prevailed.

*Dr. Taylor's address will be found in another column of this issue of the JOURNAL.

Upon motion duly seconded and carried the Scientific Assembly adjourned.

GENERAL MEETING

The President called a general meeting of the Association to order at 12:15 p.m., the following reports being submitted:

REPORT OF THE SECRETARY-EDITOR.

To the President and Members of the Florida Medical Association:

GENTLEMEN—In presenting my Tenth Annual Report as Secretary-Editor, what has been covered in previous reports is still the outstanding feature concerning organized medicine in Florida. The larger county organizations representing the centers of population are well organized. The rural sections of the State and the smaller towns in many instances are without organization and never have been organized. In other instances these smaller communities have at various times organized, their activities depending upon the energetic work of one or two individuals. Just as soon as these particular individuals leave these smaller communities the organization dies as a result of lack of leadership. The President, Dr. H. M. Taylor, and myself have at various times during the past year discussed this feature. Covering the large area that Florida does, it is manifestly impractical for a single individual to contact each and all of these smaller communities. Our organization at the present time is represented by eleven Councillors covering the eleven judicial circuits of the State that existed at the time we last made any alteration in our Constitution and By-Laws. Since that time seven additional judicial circuits have been added to the State and several counties have been divided creating many additional counties not covered in our present districts. It is manifest that by increasing our number of Councillors to represent each judicial circuit as it now exists, and that each and every one of these officers, being active in his district, will result in a large increase in our membership.

While we have not made any great progress in numbers, it is believed that the influence of organized medicine is more manifest in the social life of the State today than at any previous time since the organization of the Florida Medical Association fifty-one years ago. This is reflected more especially in recent sessions of our legislative bodies in Tallahassee. As a result of the teachings and propaganda of organized medicine throughout the country, the laymen today

have a great deal more respect for the organized efforts of physicians than they have had heretofore.

The JOURNAL OF THE FLORIDA MEDICAL ASSOCIATION has advanced in a most gratifying manner to all those interested in the actual publication of this organ. As stated in many previous reports, from a financial standpoint the JOURNAL'S success has long been assured, and from a scientific standpoint it can be made just so valuable a publication as the individuals of the Florida Medical Association put effort into it. There is appended to my report a financial statement of the JOURNAL OF THE FLORIDA MEDICAL ASSOCIATION, to which is also added my report as Treasurer of the Association. The total receipts of the Association have gradually increased from something less than \$1,000.00 at the time I first took over office to a total of over \$5,000.00 during the past year. At a recent meeting of the Executive Committee it was suggested that a complete audit be made of the financial affairs of the Association. I have therefore had prepared an audit by Messrs. Mucklow & Ford, certified public accountants, which follows:

FINANCIAL STATEMENT OF THE JOURNAL OF THE FLORIDA MEDICAL ASSOCIATION.

<i>Resources.</i>	
Balance cash on hand last report	\$ 291.22
Earnings from advertisements	2,487.60
Furniture	96.66
Cash from Florida Medical Assn.	1,050.00
	<hr/>
	\$3,925.48
<i>Disbursements.</i>	
Expenses as vouchered	3,165.40
Commissions	276.58
Discounts	55.93
	<hr/>
<i>Assets.</i>	
Furniture	96.66
Cash on hand	330.91
	<hr/>
	\$3,925.48

GRAHAM E. HENSON,
Secretary-Editor.

TREASURER'S REPORT FOR 1924.

To the President and Members of the Florida Medical Association:

GENTLEMEN—The following is an accounting of the funds of the Florida Medical Association for the current fiscal year:

Balance on hand last annual report	\$ 32.92
Back dues collected during the year	910.00
Current dues	1,171.00
	<hr/>
	\$2,713.92
Expenses as vouchered	\$2,489.48
Balance on hand	224.44
	<hr/>
	\$2,713.92

GRAHAM E. HENSON,
Treasurer.

*H. Marshall Taylor, M. D.,
President, Florida Medical Association,
Jacksonville, Florida:*

DEAR SIR—We have examined the records submitted to us by Dr. Graham E. Henson, the Treasurer of your Association, and enclose with this, statements which, we believe, correctly set forth the business of the year ending April 30, 1924.

The transactions are recorded in a Cash Book which shows all moneys received by the Treasurer and all payments made by him, each of such payments being supported by a properly endorsed paid bank check.

While the accounts appear to be accurately and clearly stated, and to be well kept, as far as they go, we are of the opinion that it would be wise to put into effect some such rules as the following:

1. A receipt should be given for each amount received by the Treasurer; these receipts should be in duplicate and in book form so that a carbon copy can be kept of each receipt, thus affording a ready means of checking all moneys reaching the Treasurer.

2. That every cent which is received should be deposited in the Association's bank account.

3. That some record should be kept of the amounts due to the Association from the various county organizations, so that any county which may be in arrears can be reminded of the fact. No such record appears to exist, although under Sec. 3, Chapter VI of the By-Laws such a book is required.

4. The number of disbursements is small and we think that it is unnecessary, at the present time, to keep any ledger accounts, as there can readily be prepared whenever desired such analyses as those which accompany this report.

We are, yours faithfully,

MUCKLOW & FORD,
Certified Public Accountants.

By WALTER MUCKLOW, C. P. A.,
Member of American Institute of Accountants.

WE CERTIFY: That we have examined the Cash Book, the paid bank cheques and the reports of dues paid by the respective Counties for the year ending April 30, 1924, submitted to us by the Treasurer of the Florida Medical Association;

That all disbursements made by the Treasurer are supported by properly endorsed bank cheques;

That the amounts reported as collected agree with the respective County statements;

That the discounts and commissions paid on account of the advertising pages in the JOURNAL appear to be regular and uniform;

That the balance in the Florida National Bank to the credit of the Florida Medical Association on April 30, 1924, was \$555.35;

That, in our opinion, the accompanying statements are correct.

MUCKLOW & FORD,
Certified Public Accountants.

By WALTER MUCKLOW, C. P. A.,
Member of American Institute of Accountants.

FLORIDA MEDICAL ASSOCIATION.

Consolidated Cash Statement for the Year Ending April 30, 1924.

Receipts.

Cash in bank April 30, 1923—General Fund	\$ 32.92	
Journal	291.22	\$ 324.14
Dues collected, per Exh. B ..	2,681.00	
Earnings from advertising pages, per Exh. C	2,477.60	
Total Receipts		5,158.60
Total cash to be accounted for .		5,482.74

Disbursements.

For expenses, General Fund, per Exh. B	\$ 1,439.48	
For expenses, Journal, per Exh. C	3,487.91	
Total Disbursements		\$4,927.39
Balance in bank April 30, 1924		\$ 555.35

Cash Statement—General Fund for Year Ending April 30, 1924.

Cash on hand, per report, May 1, 1923	\$ 32.92	
Dues collected—Arrears	\$ 910.00	
Dues collected—Current, per Exh. D	1,771.00	2,681.00
Total Cash to be accounted for		\$2,713.92

Disbursements.

Paid for flowers	\$ 25.00	
Paid for postage	57.00	
Paid for printing	4.25	
Salary—Secretary	1,297.78	
Salary—Stenographer	50.00	
Stationery	4.70	
Telephone	75	
Total Expenses	\$ 1,439.48	
Transferred to JOURNAL account	1,050.00	
Total Disbursements		\$2,489.48
Balance, Cash in bank		\$ 224.44

Exhibit B.

Cash Statement—Journal for Year Ending
April 30, 1924.

Receipts.	
Cash on hand, per report,	
May 1, 1923	\$ 291.22
Earnings from advertising pages	2,477.60
Cash received from the Flor- ida Medical Assn. Gen. Fund	1,050.00
Total Cash to be accounted for	\$3,818.82

Disbursements.	
Paid commissions on	
advertising	\$ 276.58
Paid discounts allowed on	
advertising	55.93
Paid postage	10.00
Paid printing	2,051.05
Paid refund	8.00
Paid salaries—Editor	990.00
Paid salaries—Stenographer ..	60.00
Paid telephone	36.35
Total Expenditures	\$3,487.91
Balance, Cash on hand	\$ 330.91

Memorandum.	
Total expenses	\$3,487.91
Total earnings	2,447.60
Net cost to the Florida Medical Association for the year	\$1,010.31

Assets.	
Furniture	\$ 96.66
Cash on hand	330.91 \$ 427.57
Liabilities.	
None	

Exhibit C.

List of Dues Paid by Counties, Etc.	
Alachua	\$ 60.00
Bay	25.00
Columbia	45.00
Dade	305.00
Duval	440.00
Escambia	95.00
Hillsboro	370.00
Jackson	90.00
Lafayette	10.00
Lake	35.00
Leon-Gadsden	58.00
Manatee	47.00
Marion	140.00
Monroe	21.00
Orange	235.00
Pasco	10.00
Pinellas	255.00
Polk	140.00
St. Johns	80.00
Taylor	35.00
Volusia	110.00
Individuals	75.00
Total	\$2,681.00

Exhibit D.

It was moved by Dr. L. M. Anderson and seconded that the reports of the Secretary-Editor and the Treasurer be accepted and referred to the House of Delegates. Carried.

REPORT OF THE EXECUTIVE COMMITTEE.

The Executive Committee has had several meetings during the course of the year just ended and has given considerable study to matters affecting the general welfare of the Association.

On June 10, 1923, the Committee appointed Dr. H. M. Taylor delegate to the meeting of the American Medical Association at San Francisco, and Dr. Louis S. Oppenheimer, Tampa, alternate. The General Meeting of 1923 had overlooked these appointments.

Telegrams of sympathy were sent, in the name of the Association, on the occasion of the death of Dr. S. R. Mallory Kennedy, Pensacola, and the recent death of Dr. James M. Jackson, Miami, both past Presidents of this Association. Appropriate floral offerings were also sent on each occasion, and a memorial to each has been published in the JOURNAL by the Editor.

A meeting of the Committee was held April 10, 1924, in Jacksonville, with the President and Secretary of the Association present and participating. All the affairs of the Association were frankly discussed and action taken designed to perfect the methods and facilitate the business of the Association. The suggestion was made and heartily concurred in by all that an audit of the business affairs of the Association be made by a certified public accountant. This audit has been made and the report of the accountant will be read at the proper time.

The Constitution and By-Laws, printed in the JOURNAL for June, 1923, were found to be somewhat chaotic, lacking clearness in many respects and containing provisions quite at variance with our established procedure as well as some that are archaic. The Committee has given much study to this matter and has prepared a revised Constitution and By-Laws which will be presented at the meeting of the House of Delegates. The Committee is grinding no axes and has no purpose in this matter other than the welfare of the Association. We ask you to accept our recommendations in this spirit.

In conclusion the Committee wishes to direct your attention to the service rendered by Dr. H. M. Taylor in securing the passage of proper Lye laws by the last Legislature, and also to point to the marked advance of this Association in all di-

rections, during the past year, due to the influence and inspiration of his administration.

R. H. MCGINNIS,
W. L. HUGHLETT,
JAMES V. FREEMAN,
Chairman.

Jacksonville, Fla., May 13, 1924.

It was moved and seconded that the report be accepted and referred to the House of Delegates. Carried.

The following reports of Councillors were submitted:

First District—W. C. Payne, Pensacola.

"My report will be very informal. I have no written report with me. I have been Councillor for the first district for two years, and up until this year have done practically nothing,—have been very neglectful of my duties. All of the counties in my district have been organized, except Okaloosa, which is all pioneer territory. This year I went to Walton county, which is in my district, and we organized the Walton County Medical Society. There are only three doctors in Okaloosa county, and these are affiliated with the Walton County Medical Society, which leaves unorganized in my district, Santa Rosa county. We have invited Santa Rosa county to join the Escambia County Society,—this they are going to do. There are only five of the profession in my district who are not members of the Association, and these will join in the next few months.

Third District—R. M. Harkness, Lake City.

I want to say at the outset that I think we are everlastingly indebted to Dr. Taylor for his interest in getting behind the organized county medical societies and for stirring up interest in the formation of new societies.

I was elected Councillor of the third district at the meeting in Pensacola several years ago. I inquired as to the duties of Councillor, and they said, "Nothing"—so far as they knew. At the meeting the following year, I was still unable to learn anything definite. Last year the Association met in Jacksonville, and there was no time for this meeting. It was never given the importance that Doctor Taylor has given it.

I want to confess my negligence, so far as my activity is concerned, in this very important duty. I have done some little work, but I want to confess to you that not until Doctor Taylor very urgently insisted on the importance of this position did I fully appreciate the fact that Florida holds the

lowest place in organized medicine, especially in the Southern States, and he arouses us all to greater activity in trying to get our counties fully organized.

I will say that out of the six counties in my district we have organizations in three of them, but just as was alluded to by the Secretary, these organizations are usually only organizations in name alone. I suppose that this is due to everything being unorganized, but there should be some way to stimulate interest in these county organizations. I believe that if the Councillors in the different districts will attempt to have intra-district meetings, including all of the counties, that perhaps in itself would do a great deal toward stimulating interest in organized medicine. I will state that since my election as Councillor in the third district, I have helped to organize the Taylor County Society, which leaves three counties unorganized,—Lafayette, Suwannee, and Madison.

Now, in reply to the letters that have been recently sent out to officers in the various districts attempting to stir up interest in organized medicine, so far there has not been a great deal of response. There has been some response from the members in Madison county indicating that they are willing to cooperate in the support of organized medicine,—and if I am still permitted to occupy this position, I want to promise you that I will endeavor to get the other three counties in my district organized, and that we will all attempt to stir up more interest in organized medicine.

Fourth District—Dr. R. B. McIver, Jacksonville.

Duval County has an organization, the total membership of which now numbers one hundred and thirty-four. Meetings are held once a month, and scientific papers are read at each of these meetings.

St. Johns county is also organized. St. Augustine has fourteen eligible men in town,—fourteen men in the society,—and they meet once a month. They have not been having scientific papers, but Doctor Spencer assures me that they are contemplating them for the near future. They have taken two men in from Hastings, and are receiving applications from men in Palatka, in an active campaign to include every doctor in the county, and nearby towns.

Clay and Nassau counties are unorganized. They have too few eligible doctors to form organizations of their own, and up to the present

time their physicians have not joined any of the neighboring societies, as the roads are in very bad condition and the distances are great.

The doctors in Fernandina we hope soon to have in the Duval County Society as it is the nearest society to them. Doctor Humphreys, of Fernandina, has taken the responsibility of getting all the members of that county into the nearest county medical society.

Doctor C. D. Christ asked for and received the recognition of the Chair, presenting a resolution relative to the use of alcoholics for medicinal purposes. He moved the adoption of the resolution, which was seconded by Drs. Pittman and Love, of Jacksonville; Doctor Hughlett, of Cocoa, and others. After considerable discussion relative to the motion to adopt the resolutions as presented, they were referred to the House of Delegates for disposal.

The reading of the reports of Councillors was then proceeded with.

Fifth District—H. Cutting Dozier, Ocala.

As Councillor of the fifth district, I have performed a good many of my duties by word of mouth to the individual members of the five counties included in my district, with whom I came in contact rather frequently.

The facts are as follows: I have two organized societies in my district, one in Sumter county and one in Marion county.

Lake county has no society, but I have talked to some of the men in Lake county and it is contemplated before long to have one organized.

One hundred per cent of the eligible men in Suwannee county belong to some organization, —two of them having joined the Marion county society on account of their living closer to Ocala.

All of the eligible men in Sumter county are members of that society.

Marion county has also been able to bring in two men, who have been in the past engaged in some illegal practice, but who were eligible in every other respect. They are now members of our society and in good standing. We hold regular monthly meetings, which have taken place every month for the past one and one-half years. These meetings are always attended with practically 95 per cent of the total membership and 100 per cent of the Ocala physicians, and we also have one or two outside physicians present.

There was also an effort made about one year or more ago to organize what we called the "Central Florida Medical Society", which was modeled somewhat on the lines of the Florida

Midland Medical Society. At first these meetings were well attended—fifty or more doctors being present,—and much enthusiasm was shown. However, these meetings had to be discontinued on account of the condition of the roads in the various counties, making it very difficult for the physicians to attend. The last meeting was held about a year ago in Ocala. However, we still have some money in the bank, are still potentially in existence, and it is our intention to resume these meetings at some future date,—that is, if the road work has been completed and there are not too many detours.

So I will proceed to promise, as some of the others have done, that if I am still permitted to be Councillor of the fifth district, I will make every effort to organize a society in Lake county, and if we are unable to organize Citrus and Hernando counties on account of the very small number of doctors residing in that territory, will make every effort to bring them into a nearby county organization.

Seventh District—W. L. Hughlett, Cocoa.

As Councillor for the seventh district I beg leave to submit the following report:

Having had no opportunity to visit with the county medical societies during the year, I addressed a letter to all the Secretaries or to well-known members, asking them to inform me as to membership and the general status of their several counties. Replies follow:

BREVARD COUNTY.

Doctor W. C. Page reports: "Present status of the Brevard County Medical Society, 'non-existent.' Brevard County has had a good society; at one time all the physicians of the county but one held membership. There is more or less friction of a personal nature that prevents harmony at this time. The matter will receive attention."

ST. LUCIE AND OKEECHOBEE COUNTIES. BI-COUNTY SOCIETY.

Doctor David Rose reports (Doctor Rose is President): "We have eleven members, two more have agreed to come in. Meetings monthly, well attended, good interest."

"Seminole and Osceola counties are affiliated with Orange."

ORANGE COUNTY.

The Secretary, Doctor Mitchell Andrews, reports: "Active medical society, 48 members. Meetings held every month in which active interest is taken."

PALM BEACH COUNTY.

Personal letter from Doctor Leon A. Peek: "We have about one dozen members in our county society. Meetings once a month, well attended."

VOLUSIA COUNTY.

No account from the Secretary up to the making up of this report. I am informed, however, that Volusia has a wide-awake county society.

I think the standing of the medical men of this district compares well with any section of this country.

I think the county societies of Florida will do well to maintain a high standard of membership. We should do this for our own credit, and to protect the people against the wiles of quacks and fakers. It might not be out of place to suggest that the President of the Association name a committee to formulate a fee table. From what I can learn there is a great variation in medical and surgical fees in different parts of Florida.

Respectfully submitted,

W. L. HUGHLETT, M. D.

Ninth District—C. H. Ryals, Delwood.

I beg to report Jackson and Washington counties fairly well organized, also Bay county. There is no organization in Holmes county. Calhoun county is still unorganized but will very likely merge with Jackson county. Will make effort to that effect.

The great difficulty in medical organization in the ninth district is a careless and apathetic indifference. The profession seems to be unconcerned, but there is evidence of improvement and I think with proper efforts within another year this district will be well organized.

It will take regular, unselfish devotion and earnest work along this line, but a faithful few in each county can and will bring old Florida Medical Association up to the top in organization.

Tenth District—R. L. Kline, Arcadia.

We have organized societies in Polk county, Manatee county and De Soto county. However, there are several new counties in that region that have not yet been organized. The Secretary of the Polk county society, together with myself, have been very actively engaged in getting all of these new counties, who are not in the organization, to come in and join with us, and I believe that a vast majority of the physicians in these counties are now members of the Polk county society. As the report will show we have many

more members this year in the medical fraternity than ever before.

Eleventh District—W. R. Warren, Key West.

Practically all of the members, in fact all of the doctors in Monroe county who are eligible, are members of the Monroe County Medical Society.

Although I think we are as far away from Orlando as anybody who is in the Association, we have three members present today in Orlando from Monroe county.

In Dade county they have a very good society, and a very strong one. Up to the last sixty days they had seventy-nine members, but owing to the death of Doctors Jackson and Parrott, they now have only seventy-seven members. They are very well organized and hold regular meetings. Two scientific papers are assigned and read at each meeting. As I said before, they have a very strong society.

In Palm Beach county they have a very good society also. The members get along very well together, and practically all of the eligible physicians in Palm Beach county are in the society. They have not been very active in the meetings so far, but I have the promise of the President and Secretary that they are trying to come up, and I think that in the future they will be able to report progress.

Upon motion duly seconded the reports of the Councillors were accepted and ordered printed in THE JOURNAL OF THE FLORIDA MEDICAL ASSOCIATION. Carried.

Upon motion duly seconded the General Meeting adjourned.

SCIENTIFIC ASSEMBLY

The Scientific Assembly was called to order at 2 p. m., by Doctor James D. Love, Chairman, the following papers being read and discussed:

"A Plea for the Early Diagnosis and Treatment of Pulmonary Tuberculosis," Lantern Slides, Herman H. Harris, Jacksonville.

"Clinical Experiences with Insulin in the Treatment of Diabetes Mellitus", E. W. Bitzer, Tampa.

"The Post-Operative Treatment of Peptic Ulcer", Harry A. Peyton, Jacksonville.

"Surgical Diagnosis", John S. McEwan, Orlando.

"Spirochetosis Bronchialis", report of Case, J. B. Wallace, Tampa.

"High Blood Pressure From the Standpoint of the Ophthalmologist", Michael Price DeBoe, Key West.

"The Cisterne Puncture, Its Value in Diagnosis and Treatment", H. Mason Smith, Tampa.

The time set for the meeting of the House of Delegates having arrived, the Scientific Assembly adjourned.

MEETING OF THE HOUSE OF DELEGATES

The House of Delegates was called to order by the President, H. Marshall Taylor, at 5 p. m., and organized as follows:

<i>County</i>	<i>Delegate</i>
Alachua	G. W. Floyd, Hawthorne
Columbia	L. M. Anderson, Lake City
DeSoto	J. A. Simmons, Arcadia
Dade	{ G. G. DuBose, Lemon City
	{ E. C. Thomas, Miami
	{ F. J. Waas, Jacksonville
	{ J. D. Love, Jacksonville
	{ W. H. Adams, Jacksonville
Duval	{ J. H. Pittman, Jacksonville
	{ J. E. Boyd, Jacksonville
	{ J. H. Randolph, Jacksonville
	{ C. D. Rollins, Jacksonville
Escambia	H. S. McEwan, Pensacola
Hillsboro	{ J. S. Helms, Tampa
	{ Sheldon Stringer, Tampa
	{ Burdette Smith, Tampa
	{ J. C. Vinson, Tampa
Leon	Henry Palmer, Tallahassee
Manatee	{ Joe Holton, Sarasota
	{ H. Gates, Bradentown
Marion	{ H. C. Dozier, Ocala
	{ H. L. Watt, Ocala
Monroe	J. Y. Porter, Key West
Orange	{ C. D. Christ, Orlando
	{ G. H. Edwards, Orlando
	{ C. T. Marshall, Sanford
Palm Beach	L. A. Peek, Palm Beach
Pasco	David Mills
Pinellas	{ E. J. Melville
	{ O. O. Feaster
	{ C. A. Williams
DeSoto	R. L. Kline, Arcadia
Polk	R. H. Moody
St. Johns	G. W. Potter, St. Augustine
Volusia	W. H. Taylor, Daytona

The Secretary called attention to the reports of the Secretary-Editor, the Treasurer and the Executive Committee, which had been referred to the House of Delegates, by the General Association for disposal. It was moved and seconded that the reading of these reports be dispensed with and that they be published in the Official Proceedings in THE JOURNAL OF THE FLORIDA MEDICAL ASSOCIATION. Carried.

The following proposed changes in the Constitution were submitted by Doctor J. V. Freeman, Chairman of the Executive Committee:

ARTICLE 6, SECTION 2, reading: "The time and place of holding each annual session shall be fixed by the House of Delegates."

Amended to read: "The place for holding each annual session shall be fixed by the House of Delegates, the time to be determined by the Executive Committee at a date not later than four months prior to the annual meeting."

ARTICLE 7, SECTION 1, reading: "The officers of this Association shall be President, three Vice-Presidents, Secretary-Editor, Treasurer and eleven Councillors."

Amended to read: "The officers of this Association are to be a President, three Vice-Presidents, a Secretary and Treasurer, Editor of the JOURNAL, Executive Committee, and fourteen Councillors. In the discretion of the Association, the offices of Secretary, Treasurer and Editor of the JOURNAL may be held by one individual."

ARTICLE 7, SECTION 2, reading: "The President and Vice-Presidents shall be elected for a term of one year. The Secretary-Editor, Treasurer and Councillors shall be elected for a term of four years each, the Councillors being divided into groups so that three shall be elected each year for three years and two for the fourth year. All of these officers shall serve until their successors are elected and installed."

Amended to read: "All officers are to be elected annually, and shall serve until their successors are elected and installed."

ARTICLE 7 (a): Restore original Article 9 of the old Constitution, which reads as follows: "Funds for meeting expenses of the Association are to be arranged for by the House of Delegates, by an equal per capita assessment on each county society to be fixed by the House of Delegates, or by voluntary contributions or bequests, and by profits of publications. Funds may be provided by the House of Delegates to defray the expenses of the annual sessions, for publications, and for such other purposes as may be proper in the discretion of the Association."

In accordance with the Constitution the above proposed revision was laid upon the table, to be voted on at the next annual session.

The following revision of the By-Laws was proposed by Doctor James V. Freeman, Chairman of the Executive Committee:

CHAPTER 2, SECTION 2, reading: "Special sessions of either the Association or of the House of Delegates may be called by the Executive Committee."

Amended to read: "Special sessions of either the Association or House of Delegates may be called by the President."

CHAPTER 3, SECTION 4, reading: "No address or paper before the Association, except those of the President and Orators, shall occupy more than twenty minutes in its delivery; and no member shall speak longer than five minutes, nor more than once on any subject. Provided, that all papers be read before the component County Medical Society of which the essayist is a member."

Amended to read: "No address or paper before the Association, except those of the President and Orators, shall occupy more than fifteen minutes in its delivery, and no member shall speak longer than five minutes, nor more than once on any one subject."

CHAPTER 4, SECTION 2, reading: "Each component county society shall be entitled to send to the House of Delegates each year one delegate for every twenty members, and one for each fraction thereof, etc., etc."

Amended to read by inserting the word "Major" before the word "Fraction".

SECTION 9, of old By-laws, which is left out in the present one, labeled 8 (a).

Restore original Section 9, which reads as follows: "It shall, upon application, provide and issue Charters to County Societies organized to conform to the spirit of this Constitution and By-Laws."

SECTION 13, reading: "It shall present a summary of its proceedings to the last general meeting of each annual session and shall publish the same."

Amended to read: "It shall publish its proceedings in the JOURNAL OF THE FLORIDA MEDICAL ASSOCIATION."

CHAPTER 6, SECTION 2, reading: "The Vice-Presidents shall assist the President in the discharge of his duties. In the event of his death, resignation, or removal, the Council shall elect one of the Vice-Presidents to succeed him."

Amended to read: "The Vice-Presidents shall assist the President in the discharge of his duties, and in the event of his death, resignation or removal, shall succeed him."

CHAPTER 6, SECTION 3, reading: "The Treasurer shall give bond for the trust reposed in him whenever the House of Delegates shall deem it requisite. He shall demand and receive all funds due the Association, together with the bequests and donations. (He shall, under the direction of the House of Delegates, sell or lease any estate belonging to the Association, and execute the necessary papers; and shall, in general, subject

to such direction, have the care and management of the fiscal affairs of the Association.) He shall pay money out of the Treasury only on a written order of the President, countersigned by the Secretary; he shall subject his accounts to such examination as the House of Delegates may order and he shall annually render an account of his doings and of the state of the funds in his hands. He shall charge upon his books the assessments against each component county society at the end of the fiscal year; he shall collect and make proper credits for the same, and perform such other duties as may be assigned to him. The expenses of the Treasurer in attending the Annual Sessions may be paid by the House of Delegates."

Amended to read: "The Treasurer shall give bond in the amount of his yearly budget. He shall demand and receive all funds due the Association, together with bequests and donations, and shall have the care and arrangement of the fiscal affairs of the Association. He shall subject his accounts yearly to audit by a Certified Public Accountant, and render an annual report of his doings to the first general meeting of the Association. He shall charge upon his books the assessments upon each Component County Society at the end of the fiscal year, which assessments he shall collect and make the proper credits for, and he shall perform such other duties as may be assigned to him. All funds belonging to the Association shall be deposited in a National Bank to the credit of the Association, and all funds belonging to the JOURNAL shall likewise be deposited in a National Bank to the credit of the JOURNAL. No money shall be drawn from either account except by proper voucher checks, serially numbered. The expenses of the Treasurer's bond, and audit of accounts, shall be paid by the Association."

CHAPTER 6, SECTION 4, reading: "The Secretary, acting with the Committee on Scientific Work, shall prepare and issue the programs for and attend all meetings of the Association and of the House of Delegates and shall keep minutes of their respective proceedings in separate record books. He shall be custodian of all record books and papers belonging to the Association, except such as properly belong to the Treasurer, and shall keep account of and promptly turn over to the Treasurer all funds of the Association which come into his hands. He shall provide for the registration of the members and delegates at the Annual Sessions. He shall keep a card-index

register of all the legal practitioners of the State by counties, noting on each his status in relation to his county society, and upon request shall transmit a copy of this list to the American Medical Association for publication. In so far as it is in his power he shall use the printed matter, correspondence and influence of his office to aid the Councillors in the organization and improvement of the county societies, and in the extension of the power and usefulness of this Association. He shall conduct the official correspondence, notifying members of meetings, officers of their election, and committees of their appointment and duties. He shall act as Chairman of the Committees on Scientific Work and on Publication. He shall employ such assistance as may be ordered by the Council or the House of Delegates. He shall annually make a report of his doings to the House of Delegates.

"In order that the Secretary may be enabled to give that amount of time to his duties which will permit of his becoming proficient, it is desirable that he should receive some compensation. The amount of his salary shall be \$600.00 per annum."

Amended to read: "The Secretary shall attend all meetings of the Association, and of the House of Delegates, and shall keep minutes of their respective proceedings in special record books. He shall be custodian of all records, books and papers belonging to the Association, etc., etc."

The sentence "He shall act as Chairman of the Committee on Scientific Work and on Publication" is deleted.

The sentence "He shall annually make a report of his doings to the House of Delegates," amended to read "to the first general meeting of the Association."

CHAPTER 7, SECTION 1, reading: "The Executive Committee shall hold daily meetings during the annual session of the Association and at such other times as necessity may require, subject to the call of the Chairman. It shall, through its Chairman, make an annual report to the House of Delegates at such time as may be provided."

Amended to read: "The Executive Committee shall consist of the President and Secretary, ex officio, and three members to be appointed by the President. It shall consider and act upon all matters of business pertaining to the Association in the interval between the annual sessions, and shall render a report of its actions to the General Meetings."

CHAPTER 7, SECTION 1, reading: "The Executive Committee shall hold daily meetings during the annual session of the Association and at such other times as necessity may require, subject to the call of the Chairman. It shall, through its Chairman, make an annual report to the House of Delegates at such time as may be provided."

Amended to read: "The Council shall hold daily meetings during the annual sessions of the Association and at such other times as necessity shall require, subject to the call of the Chairman. It shall annually elect a Chairman and a Secretary, and the latter shall keep a record of its proceedings. It shall, through its Chairman, make an annual report to the first annual meeting of the Association."

CHAPTER 7, SECTION 2, reading: "Each Councillor shall be organizer, peacemaker and censor for his district. He shall visit each county in his district at least once a year for the purpose of organizing component societies where none exist, for inquiring into the condition of the profession, and for improving and increasing the zeal of the county societies and their members. He shall make an annual report of his doings, and of the condition of the profession of each county in his district to each annual session of the House of Delegates. The necessary traveling expenses incurred by such Councillor in the line of the duties herein imposed may be allowed by the House of Delegates, upon a proper itemized statement, but this shall not be construed to include his expense in attending the annual session of the Association."

Amended by substituting the word "Council" for the words "House of Delegates."

CHAPTER 7, SECTION 3, reading: "The Executive Committee shall be the Board of Censors of the Association. It shall consider all questions involving the rights and standing of members whether in relation to other members, to the component societies or to this Association. All questions of an ethical nature brought before the House of Delegates, or the general meeting, must originate in the county society and shall be referred to the Executive Committee without discussion."

Amended by substituting the word "Council" for the words "Executive Committee."

CHAPTER 8, SECTION 1, reading: "The regular committees shall be as follows:

"An Executive Committee, a Committee on Legislation and Public Policy, and a Committee

on Scientific Work. These to be appointed by the President.

"A Committee on Arrangements, and such other committees as may be necessary from time to time will be named by the Executive Committee."

Amended to read: "Regular Committees shall be the Executive Committee, a Committee on Legislation and Public Policy, and a Committee on Scientific Work. They shall be appointed by the President."

CHAPTER 8, SECTION 2, reading: "The Committee on Scientific Work shall consist of three members, of which the Secretary shall be a member, and shall determine the character and scope of the scientific proceedings of the Association for each session, subject to the instructions of the House of Delegates or of the Association, or to the provisions of the Constitution and By-Laws. Previous to each annual session it shall prepare and issue a program announcing the order in which papers, discussions and other business shall be presented, which shall be adhered to by the Association as nearly as practicable."

Amended to read: "The Committee on Scientific Work shall consist of three members, and it shall determine the character and scope of the Scientific proceedings of the Association, subject to the provisions in the Constitution and By-Laws. It shall prepare and issue a program for each annual session announcing the order in which papers, discussions, and other business shall be presented. The number of papers to be read before each annual session shall be left to the discretion of the Committee on Scientific Work, and that no member be permitted to present a paper in successive years."

CHAPTER 8, SECTION 4, reading: "The Committee on Publication shall consist of the Secretary-Editor and two others, etc., etc."

Amended to read: "The Committee on Publication shall consist of the Editor and two others, etc., etc."

The closing sentence of this section reading: "The Secretary-Editor shall receive an annual salary of \$600.00," amended to read: "The Editor shall receive an annual salary of \$600.00, provided that this be paid out of the funds of the JOURNAL."

CHAPTER 12, SECTION 14, reading: "It shall be the duty of the Secretary of each component society to read in open session once a year the Constitution and By-Laws of the Association, and

twice yearly its own Constitution and By-Laws."

To be stricken from the By-Laws.

In accordance with the By-Laws the proposed revisions were laid upon the table to be brought up for action the following day.

REPORT OF COMMITTEE ON PRESIDENT'S ADDRESS.

The committee appointed to consider the President's address makes the following recommendations:

1. With adoption of the revised By-Laws proposed by the Executive Committee, and election of Councillors to carry out the President's idea of increased membership, we recommend that the Councillors duly elected hold an immediate meeting and organize a Council, electing a Chairman and a Secretary. We suggest that a campaign for increased membership in their several districts be the major responsibility of the Councillors for the coming year, appropriate efforts being made to organize Societies where the same are needed and to affiliate the new members with County Societies.

We further recommend that each member of this Association cooperate with the Councillor in his district towards the accomplishment of these same ends. This Association should have 1,000 members in 1925.

2. We recommend that a Resolution be passed by this Association memorializing the Congress for favorable consideration and action upon legislation now pending before it looking to the proper labeling of caustic acids and caustic alkalies.

"Resolved, by the Florida Medical Association assembled in Annual Session at Orlando, Florida, May 13, 14, 1924, that we approve the enactment of laws now pending before the Congress of the United States governing the proper labeling and sale of all caustic acids and alkalies, to the end that their dangerous and poisonous nature may clearly be shown.

"Resolved, further, that the Secretary of this Association be hereby instructed to forward copies of these Resolutions at once to the Florida Representatives and Senators now sitting in the Congress."

We further recommend that each member of this Association cover this matter in personal letter to his Senator and Representative.

We recommend that the Committee on Legislation and Public Policy take cognizance of that part of the President's address referring to the illegal practitioners of medicine now enjoying

themselves in this State, with the recommendation that they go diligently and deeply into this matter and make a report of their activities to the next annual meeting of the Association.

Respectfully submitted,

R. H. MCGINNIS,

JAMES V. FREEMAN,

Committee.

Upon motion duly seconded the report was accepted, and a motion adopting the resolutions contained therein was carried unanimously.

A motion to adopt the set of resolutions offered by Dr. C. D. Christ, pertaining to memorializing the State Legislature, to modify the law pertaining to the medical use of alcoholic beverages, after considerable discussion, was lost.

Upon motion duly seconded the House of Delegates adjourned.

SCIENTIFIC ASSEMBLY

The Scientific Assembly was called to order at 9 a. m., May 14, by Doctor James D. Love, Chairman, the following papers being read and discussed:

"Menstruation from a New Viewpoint," Anne Young, Tallahassee.

"The Present Status of Deep X-ray Therapy", J. C. Dickinson, Tampa.

"Eventration and Hernia of the Diaphragm, with Report of Three Cases." Lantern Slides with Daylight Screen. L. W. Cunningham and W. McL. Shaw, Jacksonville.

"The Torn Perenium and its Bearing on Certain Sociological and Medical Problems", Calvin D. Christ, Orlando.

"Maxillary Sinusitis, Chronic." A Survey of Sixty Cases, Joseph W. Taylor, Tampa.

"The Treatment of Septicemia and Local Infections", J. C. Davis, Jr., Quincy.

"Temporary Hypertrophy of the Pineal Gland at Puberty, with Cerebral Symptoms", Gilbert Osincup, Orlando.

The hour set for the election of officers having arrived, the Scientific Assembly adjourned.

The Scientific Assembly was called to order at 2 p. m, by Doctor James D. Love, the following papers being read and discussed:

"Acute Osteomyelitis", J. Knox Simpson, Jacksonville.

"Regional and Block Anesthesia", Alex. M. C. Jobson, Tampa.

"Indication for the Mastoid Operation with Report of Case", B. F. Hodson, Miami.

"The Relation of Trauma to Malignancy", R. B. Harkness, Lake City.

"Ethylene-Oxygen Anesthesia", Gaston Day, Jacksonville.

"Hydatidiform Mole". Report of Case. G. H. Edwards, Orlando.

The Scientific Assembly adjourned *sine die*.

THE FLORIDA RAILWAY SURGEONS' ASSOCIATION.

The Fifth Annual Meeting of the Florida Railway Surgeons' Association was called to order at the Hotel Angebilt, Orlando, by Doctor John S. McEwan, Chairman of the local committee on arrangements who, after an invocation by Rev. Dean Adcock, delivered the address of welcome to Orlando and was followed by the response, delivered by Doctor H. C. Dozier, the President of the Association.

The minutes of the preceding meeting were read and adopted.

The applications of the following local surgeons were read: Drs. John B. Turner, L. & N. Railway, Bagdad, Fla.; Gaston H. Edwards, A. C. L. Ry., Orlando; R. D. Ferguson, F. E. C. Ry., Titusville; Thos. S. Field, F. E. C. Ry., Jacksonville, and C. D. Christ, S. A. L. Ry., Orlando. Dr. John B. Turner not being a member of the Florida Medical Society as required by our By-Laws, it was moved and carried that "all names now on the roster of the Florida Railway Surgeons' Association living in counties where no society exists be allowed a period of one year to effect an organization or to affiliate with an adjoining county society.

The question of foreign transportation was brought up and discussed freely, resulting in a motion that was carried, creating a committee of three to handle the question of foreign transportation until our next meeting, the committee to make an immediate preliminary report and to continue its activities for the next year. The committee retired and brought in the following resolution: "Be it resolved, That the Florida Railway Surgeons' Association through its regular President and Secretary request the chief surgeons of the railroads operating in Florida to take steps whereby local surgeons may acquire foreign transportation and also that wives of local surgeons may be furnished with annual

passes. Signed, Joseph Halton, L. M. Anderson, C. D. Christ, Committee.

The election of officers for the ensuing year resulted in the selection of Dr. H. E. Palmer, of Tallahassee, for President, and Dr. Jack Halton, of Sarasota, for Vice-President. The next year's meeting place will be St. Petersburg.

GENERAL MEETING OF THE FLORIDA STATE MEDICAL ASSOCIATION.

MAY 14, 1924.

Orlando, Florida.

WEDNESDAY NOON—ELECTION OF OFFICERS.

The Association was called to order May 14, 1924, at twelve o'clock, noon, by Doctor H. Marshall Taylor, President, who stated that the first order of business would be the election of a President for the ensuing year.

Dr. John C. Vinson, of Tampa, was nominated by Doctor J. H. Edwards, the nomination was seconded by Doctor L. S. Oppenheimer and others. Upon motion duly seconded nominations were closed and the Secretary instructed to cast the ballot of the Association for Dr. Vinson. The Secretary cast the ballot and Doctor Vinson was declared duly elected.

The retiring President appointed Doctors G. H. Edwards and L. S. Oppenheimer a Committee to escort the newly elected President to the Chair. Upon assuming the Chair Doctor Vinson stated: "Gentlemen, I am highly appreciative of the honor which the Florida Medical Association has conferred on me, and I will endeavor to carry out the good work that Dr. Taylor has started, and has more or less completed. The nomination speeches remind me of the story of a man, who, after listening for fifteen or twenty minutes while another related his virtues, stated that while most of them were gross exaggerations he enjoyed hearing them just the same. I certainly appreciate the honor conferred upon me."

The Chairman recognized Dr. J. V. Freeman, of Jacksonville, who stated: "Gentlemen, it has been the pleasant custom of this Association to present to the retiring President, the past President's emblem, and it has been my happy privilege to be the one selected to present, in the name of this Association, this emblem to Doctor Taylor. I want to express to him the great appreciation of this Association for his wonderful and untiring efforts on behalf of the Association this year; to congratulate him upon his highly successful

administration, and to wish him Godspeed all through the rest of his life."

Dr. J. S. McEwan, of Orlando, was elected First Vice-President.

Doctor L. S. Oppenheimer, of Tampa, Second Vice-President.

Doctor L. C. Ingram, of Orlando, Third Vice-President.

Doctor Taylor stated that there would have to be a re-apportionment of the Councillor districts to take care of the new counties being formed or created within various old counties of the State.

It was moved and seconded that the Councillors, as selected, should serve as Councillors for the new counties created out of the counties for which these Councillors had originally served.

Carried.

Councillors elected:

Second District	J. C. Davis, of Quincy
Third District	R. B. Harkness, Lake City
Ninth District	C. H. Ryals, Delwood
Eleventh District	L. A. Peek, West Palm Beach

The Chair called for nominations of Delegate to American Medical Association. Dr. J. V. Freeman, of Jacksonville, nominated Dr. H. M. Taylor, of Jacksonville.

Nomination seconded.

Dr. G. E. Henson, of Jacksonville, nominated Dr. John S. Helms, of Tampa.

Dr. Helms: "Through physical misfortune, I was unable to attend the meeting at San Francisco, which I regret exceedingly. So far as my own desire is concerned, I would very much prefer to see Dr. Taylor represent this Association. I think that he is in a position to represent us in a manner that will be of credit to us,—being our Ex-President. My feelings will not be hurt if you will retire my name at this time. It is my desire, if Dr. Henson is willing to do so, that he withdraw my name."

Nomination of Dr. Helms, of Tampa, withdrawn by Dr. Henson.

Motion to close the nominations seconded and carried. Dr. Taylor was declared elected to represent the Florida Medical Association at the meeting of the American Medical Association.

St. Petersburg was selected for the Fifty-second Annual Meeting to be held in 1925.

The question of instructing the Delegate of the Association to the House of Delegates of the A. M. A., relative to the selection of the President-elect was informally discussed, a motion finally prevailing that the delegate be uninstructed.

The General Meeting of the Association adjourned *sine die*.

HOUSE OF DELEGATES.

The House of Delegates was called to order by Dr. John C. Vinson, President, at 1:00 p.m. It was moved by Dr. Graham E. Henson that the report of the Executive Committee, making certain recommendations relative to the amendment of the By-Laws, be adopted in toto.

The motion was duly seconded and carried.

It was moved and seconded that President appoint a committee of three to draw up suitable resolutions for publication in the JOURNAL, with the official proceedings, for the many courtesies and highly satisfactory manner in which the Orange County Medical Society entertained at this meeting of the Florida Medical Association. Carried.

Dr. Wm. M. Rowlett made an informal report on the activities of the Board of Medical Examiners.

Dr. L. C. Ingram moved the adoption of the following resolutions:

WHEREAS, There are very few diagnostic clinics in this State, and

WHEREAS, Because of this condition there are no standards governing diagnostic clinics in this State, therefore be it

RESOLVED, That this The Florida Medical Society does hereby request that the President appoint a committee of five members for the purpose of drawing up regulations thereby creating minimum standards for the conduct of dispensaries and diagnostic clinics in this State; and be it further

RESOLVED, That this committee cooperate with all official and non-official organizations or groups of people and with the County Medical Societies interested in the questions concerning diagnostic clinics in this State.

The motion to adopt was duly seconded and carried.

Upon motion duly seconded the House of Delegates adjourned *sine die*.

The Slogan of the Present Administration is

"One Thousand Members In 1925"

Will You Do Your Share ?

REGISTRATION.

The following members and guests registered during the Fifty-First Annual Meeting of the Florida Medical Association held at Orlando, May 13, 14:

H. Marshall Taylor	Jacksonville	Douglas D. Martin	Tampa
Graham E. Henson	Jacksonville	J. Q. Folmer	Chattahoochee
Harry A. Peyton	Jacksonville	J. M. Beggs	Chattahoochee
Herman H. Harris	Jacksonville	Edwin C. Thomas	Miami
J. C. Vinson	Tampa	T. Z. Cason	Jacksonville
H. Mason Smith	Tampa	T. G. Simmons	Orlando
F. S. Adams	Tampa	R. F. Godard	Quincy
James V. Freeman	Jacksonville	G. H. Edwards	Orlando
W. C. Payne	Pensacola	J. A. Pines	Orlando
H. B. McEuen	Pensacola	Sylvan McElroy	Orlando
C. A. Andrews	Tampa	William D. Sethgow	Chester, Ga.
C. F. Arroyo	Tampa	Thomas Truelson	Tampa
James H. Randolph	Jacksonville	A. C. Ives	Tampa
L. Woerner	Interlachen	Elsie M. Gilbert	Tampa
E. W. Warren	Palatka	J. T. Denton	Sanford
L. S. Oppenheimer	Tampa	M. M. Martinson	Orlando
C. B. Wilson	Sarasota	Frederick A. Grossman	Vero
J. H. Pittman	Jacksonville	Burdett Smith	Tampa
Clarence D. Rollins	Jacksonville	James A. Ford	Tampa
B. L. Arms	Jacksonville	R. R. Kime	Orlando
L. C. Ingram	Orlando	J. E. Taylor	DeLand
Meredith Mallory	Orlando	Stanley Erwin	Jacksonville
John E. Boyd	Jacksonville	George Mitchell	Jacksonville
William S. Manning	Jacksonville	W. A. Myers	Casper, Wyoming
Gilbert H. Hodgson	Tampa	Herman Watson	Lakeland
Albert H. Freeman	Jacksonville	R. H. Mooty	Winter Haven
J. D. Watkins	Micanopy	W. S. Pyatt	Bowling Green
J. C. Davis, Jr.	Quincy	W. R. Groover	Lakeland
S. E. Driskell	Jacksonville	R. E. Gilbert	Winter Haven
T. P. Leffingwell	Bradentown	G. S. Osinap	Orlando
Z. P. Esch	Daytona	R. C. Boothe	Fort Pierce
George M. Floyd	Hawthorn	R. B. Harkness	Lake City
L. M. Anderson	Lake City	J. A. Simmons	Miami
Henry E. Palmer	Tallahassee	C. L. Andrews	Orlando
James D. Love	Jacksonville	A. T. Sumners	Miami
R. D. Ferguson	Titusville	T. R. Chippell	Orlando
M. P. DeBoe	Key West	E. T. Craney	Orlando
David Rose	Sebastian	M. M. Andrews	Orlando
Henry C. Dozier	Ocala	R. L. Miller	Orlando
C. H. Bryan	Bradentown	J. H. Colson	Gainesville
W. Herbert Adams	Jacksonville	Roland T. Whit	Orlando
J. H. Mills	Jacksonville	John B. Black	Jacksonville
Jack Halton	Sarasota	C. D. Christ	Orlando
Joseph Halton	Sarasota	C. J. Hurlbut	Orlando
J. O. Stranahan	Ft. Lauderdale	W. H. Spiers	Orlando
H. T. Price	Pittsburg, Penn.	William E. Ross	Jacksonville
Shaler Richardson	Jacksonville	Earnest B. Milam	Jacksonville
Anne Young	Tallahassee	Eugene G. Peck	Ocala
E. W. Bitzer	Tampa	E. G. Linder	Ocala
C. H. Kirkpatrick	Arcadia	Frank H. Harms	Orlando
J. S. McEwan	Orlando	H. F. Watt	Ocala
John A. Beals	Jacksonville	R. H. Knowlton	St. Petersburg
T. A. Neal	Orlando	E. L. Biggs	Starke
B. Manhoff	Jacksonville	John L. Redding	Orlando
J. L. Kirby-Smith	Jacksonville	H. K. Murphy	Mulberry
T. C. McGuire	Plant City	T. M. McDuffie	Manatee
John S. Helms	Tampa	Sam R. Scott	Ocoee
L. W. Cunningham	Jacksonville	W. W. Schaffer	Haines City
Banks H. Goodale	Jacksonville	O. O. Feaster	St. Petersburg
H. D. Clark	Fort Pierce	D. E. English	Orlando
T. J. Waas	Jacksonville	M. Weintraub	Tampa
F. M. Sheppard	Jaxon, Miss.	W. E. Sinclear	Orlando
H. Gates	Bradentown	W. C. Chowning	New Smyrna
J. Knox Simpson	Jacksonville	W. C. Blake	Tampa
J. D. Benton	Miami	R. R. Duke	Tampa
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Joseph W. Taylor	Tampa	J. G. DuPois	Lemon City
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		William R. Warren	Key West
		R. C. Gowdy	Miami
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The Journal of the Florida Medical Association

Owned and published by the Florida Medical Association.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of Congress of October 3, 1917; authorized October 16, 1918.

Published monthly at St. Augustine and Jacksonville. Price \$3.00 per year; 30 cents per single number.

Contributions for publication in this journal, whether scientific papers or reports of County Secretaries, should be typewritten.

Address Journal of the Florida Medical Association, St. Augustine, Florida, at 201-202 St. James Building, Jacksonville, Fla.

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EDITORIAL.

Owing to the large amount of space required to publish the Official Proceedings of the Fifty-first Annual Meeting of the Association it has become necessary to omit the publishing of any original articles or items belonging to other departments in this issue. THE JOURNAL will revert to its usual form with the publication of the July issue.

In Memoriam *

ARCHIE ROSCOE PARROTT, M. D.
1883—1924.

Since it has been the will of our Heavenly Father to remove from our midst our beloved brother and co-worker, Dr. Archie Roscoe Parrott, be it resolved:

That a page in the Minutes be set aside to memorize the greatness of our loss and to thank God for the happy promise of the reward he has so freely offered to those who live and die as did our departed brother.

That while the profession will deeply miss his counsel and presence here, his soul will rejoice in its return to the God who gave it.

E. K. JAUDON, M. D.,
W. S. GRAMLING, M. D.,
J. ROY HAWKINS, M. D.

*Resolutions adopted by the Dade County Medical Society.

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